Attitudes and Opinions About Wildlife Resource Conditions and Management in Utah:

Results of a 1998 Statewide General Public and License Purchaser Survey

Final Report

Submitted to the Utah Division of Wildlife Resources

by

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January 18, 1999

Acknowledgments

The research summarized in this report was the result of the efforts of many individuals affiliated with both the Utah Division of Wildlife Resources and Utah State University. In particular, we wish to acknowledge the efforts of Alan Clark of the Division of Wildlife Resources, who provided extensive input regarding survey content and question construction, organized input from other DWR management specialists, and coordinated the efforts to secure samples of hunting and fishing license buyers. Brian Eisenhauer and Catherine Groseclose, both graduate students in Sociology at Utah State, assumed major responsibilities for programming the survey questionnaire into the computer-based format necessary for conducting computer-assisted interviews, organizing the data for analysis, and developing the data analysis needed to prepare the report. Brian Adams, Amy Brennan, Catherine Groseclose, Holly Jeffcoat, Candace Kolos, Wendy Sanborn, Liz Schulte, Kelly Sinner, Tara Teel, Lex Watts and Michelle Weidner conducted all of the telephone interviews, in the process spending many nights and weekends that might otherwise have been devoted to family, friends, study, or other responsibilities. Although the authors are solely responsible for any oversights or errors that remain unaddressed in this report, those identified above have helped in our efforts to develop a high-quality project that will hopefully provide useful guidance to Utah's wildlife management professionals.

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Executive Summary

This report summarizes key findings from a 1998 survey of Utah residents and resident hunting and fishing license purchasers regarding their attitudes and opinions about the quality and importance of Utah's wildlife resources, and about the management of those resources. The study was conducted for the Utah Division of Wildlife Resources by the Institute for Social Science Research on Natural Resources at Utah State University, under the direction of Dr. Richard S. Krannich, Professor of Sociology and Forest Resources at USU.

The findings presented in the report are based on data obtained through telephone interviews conducted between early March and early June, 1998 with 1,401 Utah residents from throughout the state. Random samples were drawn to represent the state's adult (individuals age 18 or older) population as a whole, and also to represent individuals who had purchased resident hunting or fishing licenses in the prior year. Both the general public and license purchaser samples were drawn using a disproportionate stratified sampling procedure designed to insure representation of residents and license buyers in both metropolitan and nonmetropolitan areas of the state. This approach provided a basis both for profiling the perspectives of Utahns at large and for evaluating possible differences in the attitudes and preferences of residents who live in various parts of the state and who exhibit differing patterns of participation in wildlife-related recreational activities. For the general public sample a total of 1,332 eligible respondents were contacted and 901 interviews completed, representing a 68% response rate. For the license purchaser sample a total of 623 eligible license purchasers were contacted and 500 interviews were completed, representing a 80% response rate.

Because the range of issues addressed in the survey is vast, any attempt to summarize the results in only a few pages must necessarily remain incomplete. However, several of the key findings derived from the survey are highlighted below; more complete detail on these and other findings appears in the body of the final project report.

- Overall, Utahns exhibit high interest in the state's wildlife resources. Interest levels are fairly high among the general populations of both metropolitan and nonmetropolitan areas, and especially high among hunting and fishing license purchasers. On a scale ranging from 0 ("no interest whatsoever") to 10 ("more interest than anything else"), the mean response value for the statewide general public sample was 6.4, indicating moderately high levels of interest. Among hunting and fishing license purchasers the overall mean response value was 7.6, indicating high overall interest in Utah's wildlife resources.

- Although the Division of Wildlife Resources has actively pursued public input regarding wildlife management issues by encouraging citizen participation in the Regional Wildlife Advisory Council (RAC) process, relatively few Utahns are aware of this process, and

even fewer report that they have participated in it. Results from the statewide general public sample indicate that only 18% of adult Utahns have ever heard of the RAC process. Only about 14% of those who said they were aware of the program had actually attended a RAC meeting. About 27% of resident hunting and fishing license purchasers have heard of the RAC program, with 31% of those who were familiar with it indicating that they had attended at least one RAC meeting. These results suggest that input obtained via the RAC programs is unlikely to fully represent the perspectives of most Utahns with interest in the state's wildlife.

- Most Utahns believe that the costs of supporting wildlife management activities in the state should be borne by a relatively broad cross-section of the state's residents. When asked to consider who should assume responsibility for providing funding to support efforts to protect and enhance populations of both game species and non-game species, respondents overwhelmingly indicated that funding should be provided by either "all Utahns with an interest in wildlife" or "all Utah residents." While slightly over one-half of the public at large and about two-thirds of license buyers are aware that at present it is hunting and fishing license buyers who provide most of the funding for wildlife management in the state, a substantial proportion of Utahns apparently remain unaware that the costs of wildlife management are not more broadly distributed across the state population as a whole.

- Overall, Utahns are moderately satisfied with the way that wildlife and fish resources are currently being managed by Utah's Division of Wildlife Resources. On a scale ranging from 0 ("completely dissatisfied") to 10 ("completely satisfied"), the mean response for both the statewide general public sample and the sample of license purchasers was 5.4, slightly above the scale midpoint.

- A series of eight questions asked respondents to evaluate the Division of Wildlife Resources in terms of the agency's effectiveness in providing various wildlife-related programs and opportunities. The individual questions focused on provision of wildlife observation opportunities, fishing opportunities, hunting opportunities, enforcement of laws to protect wildlife, provision of public information and education programs, protection and improvement of wildlife habitat, protection of non-game species, and protection of game species. For all of these items responses were measured on a scale with values ranging from 0 ("not at all effective") to 10 ("extremely effective"). In general, both the general public and license purchasers evaluated the DWR as being at least moderately effective in addressing these program areas. For example, the mean responses to a question addressing the effectiveness of DWR in protecting and improving wildlife habitat were 6.1 for the statewide public at large and 6.3 for all license purchasers. The item that received the lowest effectiveness rating focused on efforts to provide information and education programs to help Utahns understand and support wildlife

conservation efforts; mean scores were 5.5 for the general public sample and 5.9 for license purchasers. The item that generated the highest effectiveness rating involved provision of opportunities for people to fish and catch fish, with mean responses of 7.0 and 7.1 for the general public and license buyers, respectively.

- Consistent with their interest in wildlife, Utahns exhibit very high levels of support overall for actions and programs that help to protect and enhance wildlife and wildlife habitat. Both the general public respondents and license purchasers expressed strong agreement that access to some public land areas should be restricted during certain periods in order to protect wildlife. Utahns also expressed strong agreement that energy resource extraction and the development of housing and roads should be limited in areas where such activities may threaten wildlife or destroy important wildlife habitat. In addition, they strongly favor restrictions on certain types of recreational activity such as the use of off-road vehicles and jet skis in areas where such activities may negatively affect wildlife or fish populations. For example, one of the questions in this series asked whether the respondents agreed or disagreed that the use of off-road vehicles should not be allowed where such activities would threaten wildlife or damage wildlife habitat. On a response scale ranging from 0 ("disagree very strongly") to 10 ("agree very strongly"), the mean response value was 7.8 among the general public and 7.5 among hunting and fishing license purchasers.

- Utahns are highly supportive overall of DWR programs involving the acquisition of land and water resources to protect and enhance wildlife habitat and to increase public access for recreational uses. While respondents expressed some ambivalence about efforts to acquire lands within urban areas or in areas immediately surrounding urban centers, they are extremely enthusiastic about acquisition efforts that would focus on land areas providing key deer and elk habitat, water rights that would protect fish populations during dry periods, riparian habitat areas, and areas providing public hunting access. For example, respondents were asked to indicate how much priority DWR should place on acquiring land areas needed to maintain or increase deer and elk populations. On a response scale ranging from 0 ("very low priority") to 10 ("very high priority") the mean response was 7.4 among the statewide general public and 7.9 among license purchasers. Similarly, the mean response values for a question asking how much priority should be placed on acquisition of water rights to protect fish populations during dry periods were 7.9 among the general public and 8.3 among license purchasers.

- Strong support for wildlife protection and for regulation of wildlife-related recreational activities is evident in responses to a series of questions pertaining to DWR law enforcement programs. Both members of the public at large and hunting and fishing license purchasers were particularly adamant in their beliefs that DWR should prioritize the enforcement of laws that require the purchase of a hunting or fishing license, that

impose restrictions and limits on the taking of fish and game, prohibit loaded firearms in vehicles, prohibit driving under the influence of alcohol, restrict trespassing on private property, and that prohibit littering and pollution of the environment. For all of these questions the mean response values on a scale ranging from 0 ("very low priority") to 10 ("very high priority") were in a range between 7.4 and 9.0, indicating very high priority ratings. Slightly lower priority ratings were assigned to the enforcement of laws protecting endangered species and protecting non-game bird species, with mean response values for these items falling between 5.6 and 6.7.

- Substantial proportions of Utahns engage in nonconsumptive activities related to the state's wildlife. Over 40% of survey respondents reported that they feed wildlife, and nearly one-third said they maintain plantings intended to provide wildlife habitat. About four in ten Utahns report participation in wildlife observation outings, with hunting and fishing license purchasers substantially more likely than members of the general public to report participation in these types of outings. Levels of satisfaction with wildlife observation experiences (measured on a 0-10 scale) were quite high among both the public at large (mean response value of 6.9) and among license purchasers (mean response of 7.1).

- Most Utahns believe that DWR should place a moderately to very high priority on habitat protection and informational programs designed to enhance wildlife observation opportunities. For example, when asked to indicate how much priority should be placed on development of watchable wildlife sites or trails in urban areas, the mean response values (on a 0-10 scale) were 7.0 for the statewide general public sample and 6.7 among license purchasers. Similarly, mean responses to a question asking about the extent to which DWR should prioritize the presentation of radio and television programs to educate the public about Utah's fish and wildlife resources were 7.1 among members of the general public sample and 7.4 among license purchasers.

- Responses to questions pertaining to the management of big game populations reveal that Utah's hunters are only moderately satisfied with their big game hunting experiences. On a scale ranging from 0 (indicating that hunting experiences were "extremely poor") to 10 (indicating that experiences were "extremely good"), the mean response among big game hunters was 5.65, only slightly above the scale midpoint. At the same time, Utah's big game hunters tend to be only moderately supportive of possible management changes, including some that could potentially enhance hunting quality. For example, only about one-third of respondents indicated that they would favor the implementation of a drawing-based approach to the allocation of general bull elk tags, and fewer than 30% were supportive of having a drawing for spike bull tags. Hunters also expressed little support for some alternative approaches to the management of deer hunting opportunities. For example, roughly equal numbers of hunters expressed strong approval and strong

disapproval of a concept involving revised procedures for the sale of deer licenses so that members of traditional family hunting groups would be assured of getting licenses to hunt in the same area. Survey respondents were also ambivalent about the concept of offering a one-day, youth-only deer hunt, with nearly one-half of respondents indicating that they would disapprove of such a program.

- Upland game hunters express only moderate levels of satisfaction with the quality of their recent hunting experiences in Utah. On a 0-10 response scale, the mean satisfaction rating among upland game hunters was 5.3, barely exceeding the scale midpoint. Waterfowl hunters express substantially higher satisfaction, as reflected by a mean response score of 7.3 . Upland game hunters are highly supportive of the concept of releasing pen-raised birds to increase the number of birds available during hunting seasons. Among both upland game and waterfowl hunters there is only limited support for the provision of a youth-only hunting date, but high support for the implementation of access restrictions to reduce crowding in high-use hunting areas.

- Over 50% of Utah adults indicate that they have purchased a fishing license at some time during the past three years. Among those who have never purchased a license or have done so only in the more distant past, the lack of time to fish emerged as the dominant reason for choosing not to participate in fishing. However, responses also indicated that access to information about fishing areas and techniques, concerns about the quality of fishing and about crowding, and concerns about public access to fishing areas are also important factors that limit fishing participation and recruitment.

- Recreational cougar and bear hunting and management efforts to control predator species that prey on game populations emerged as perhaps the most contentious issues addressed in the survey. With regard to predator control as a means of protecting populations of game species, responses indicated a substantial split in opinion among Utahns at large, with substantial proportions of survey participants expressing both strong opposition and strong support for such management actions. Among the statewide general public the mean response value (on a 0-10 approval scale) for this type of management approach was just 4.9. License purchasers expressed slightly higher support, as indicated by a mean response value of approximately 6.0.

  Support for cougar and bear hunting was limited even among most hunting and fishing license purchasers, and extremely low among the general public. On a 0-10 scale the mean approval rating for recreational hunting of cougar was just 4.4 among the general public and 6.4 among license purchasers. More substantial opposition was evident\ regarding the use of hounds to hunt cougar, with mean scores of just 3.5 among the general public and 5.6 among license purchasers. With respect to recreational hunting of black bear, mean approval ratings were 4.4 and 5.7 among the general public and license

purchasers, respectively. Use of hounds to hunt bear received substantially lower approval ratings, as evidenced by mean response values of just 2.9 among the public at large and 4.6 among license purchasers. Even less support was expressed for allowing bear hunters to use baits, with mean response values falling to just 2.3 among the general public and 3.7 among license purchasers.

In summary, results of the survey indicate that Utahns are highly interested in the state's fish and wildlife resources, and highly supportive of efforts to protect and enhance wildlife populations through law enforcement, habitat acquisition, limitation of land and resource developments, restrictions on access to and use of certain key habitat areas, and funding derived from a broad cross-section of the state's population. Clearly Utahns place substantial value on the state's wildlife resources, and view the protection and enhancement of those resources as important to the quality of life enjoyed by residents of the state.

The results also indicate that most Utahns are at least moderately satisfied with their wildlife-related recreational experiences, and with the ways that DWR is managing wildlife resources and providing for wildlife-related recreational opportunities. It is important to note that respondents generally did not indicate either substantial dissatisfaction with current conditions or substantial opposition to most management actions that DWR is now pursuing. In some ways the gap between high levels of interest in wildlife and more moderate levels of satisfaction with wildlife management may be inevitable. Constraints imposed by limited fish and wildlife populations and limited agency resources make it difficult if not impossible to provide the range and quality of wildlife-related recreational opportunities that many Utahns would like to experience. Utah's wildlife managers are confronted with a difficult task in their efforts to balance public demands for wildlife-related recreational opportunities with the need to protect and preserve the state's fish and wildlife resources. Hopefully the results presented in this report will provide wildlife managers and policy makers with useful guidance. Better knowledge about issues that Utahns wish to see prioritized with respect to wildlife management and key areas where additional dialogue and information dissemination are needed should prove useful in the search for improved future management efforts.

INTRODUCTION

Like many other state wildlife management agencies across the U.S., the Utah Division of Wildlife Resources (DWR) has devoted substantial effort and resources in recent years to develop improved insights into public preferences and concerns about wildlife conditions and wildlife management practices in the state. In addition to regularly scheduled public meetings of Regional Wildlife Advisory Councils located throughout the state, DWR has periodically conducted sample surveys designed to provide scientifically reliable data on patterns of wildlife-related recreation use, satisfaction with wildlife-related recreation opportunities, attitudes about wildlife resource conditions and wildlife management practices, and preferences regarding possible changes in management efforts. In combination, these approaches to soliciting public input are intended to provide DWR with an improved understanding of the activities, preferences, and priorities of the various public constituencies that enjoy and value Utah's wildlife resources.

This report presents the results of a 1998 statewide telephone survey of Utah residents, including both members of the general public and resident hunting and fishing license purchasers, regarding their views about a broad range of wildlife management issues. The survey was conducted by the Institute for Social Science Research on Natural Resources (ISSRNR) at Utah State University, under a contract with the Utah Division of Wildlife Resources. Unlike some other recent DWR surveys designed to address specific management issues such as deer hunting opportunities (Krannich, Keith and Rhea, 1991), the development of aquatic resource education programs (Krannich, Keith and Ohlhorst, 1994), or fishing participation and fish harvest patterns (Lilieholm and Krannich, 1996), this survey was structured to provide data on a wide variety of topics. Some portions of the survey parallel similar sections of an earlier DWR survey conducted

in late 1986 (see Krannich and Cundy, 1987), providing a basis for evaluation of changes in public attitudes and perceptions that may have occurred between the two survey periods.

This report is intended to provide a summary of response patterns and trends for the full range of issues and themes addressed in the 1998 wildlife opinion survey. Following an overview of the study design and data collection procedures, descriptive data are presented summarizing overall response tendencies among both the general public respondents and hunting and fishing license purchasers. Because of the broad range of topics included in the survey, the approach used in this report will emphasize breadth of coverage rather than in-depth analysis of individual questions or issues. Additional analyses focusing more detailed attention on questions addressing particular management issues and the differences between specific constituency groups (e.g., those who have no interest in and do not participate in any wildlife-related recreation activity vs. those who are strictly nonconsumptive participants vs. those who hunt and/or fish) will be presented in a separate addendum report to be prepared at a future date.

RESEARCH APPROACH

Survey Instrument Development

This project was initiated in December, 1997 at a planning meeting involving the project director and a team of DWR management specialists who were engaged in the broader strategic planning efforts being pursued by DWR, of which this survey was a part. At this meeting and in subsequent communications DWR management personnel provided input regarding a variety of issues and themes that might be included in the survey questionnaire. Some segments of the questionnaire were designed to allow comparisons with portions of the 1986 survey conducted by

Krannich and Cundy. However, the discussions that emerged during this initial meeting and in follow-up contacts with DWR management specialists indicated substantial interest in addressing a variety of issues not covered in that earlier study. As a result, the survey focus was expanded to include consideration of a broadened range of wildlife management issues. Major content areas that were designated for consideration included the following: general interests and preferences regarding wildlife management; perceived effectiveness of DWR in various management activities; attitudes about trade-offs between wildlife protection and various land and resource uses; knowledge and perceptions regarding funding for wildlife management; attitudes about DWR law enforcement activities and programs; attitudes about wildlife habitat acquisition; questions about nonconsumptive wildlife interests and management; questions about big game management, predator management, upland game management, waterfowl management, and fishing management; and finally, questions pertaining to selected sociodemographic characteristics of survey respondents.

Subsequent to the initial project meeting, several draft versions of the questionnaire were developed by the ISSRNR project director and staff members and submitted to DWR for review and comment. After several iterations of review and revision, a draft version of the questionnaire was pre-tested through face-to-face interviews with a convenient sample of 15 individuals living in Cache County, Utah. Input derived from the pretest was used in making further revisions designed to enhance clarity of some items and to reduce the length of time required to complete the interviews. After additional revisions and a second formal pretest, a final (ninth draft) version of the questionnaire was developed in late February, 1998. This final version of the survey instrument was formatted for administration via a computer-assisted telephone interviewing (CATI) approach, using Questionnaire Programming Language (QPL) software developed by the

U.S. General Accounting Office (GAO, 1989).

Sample Selection

General public sample. In order to obtain information representative of the attitudes and perceptions of the general public, a multi-stage stratified sampling procedure was used to select and interview a sample of approximately 900 adult (age 18 or older) residents from throughout the state. Because over three-fourths (77.5%) of Utah residents reside in the four Wasatch Front metropolitan-area counties (Davis, Salt Lake, Utah, and Weber counties), a disproportionate stratified sampling design was applied, with 50 percent of the sample designated to include residents of the metropolitan-area counties and 50 percent designated to include residents of the remaining 25 nonmetropolitan counties. This approach was adopted in order to insure that the final sample would include adequate numbers of responses from both metropolitan and nonmetropolitan regions of the state to support analysis of possible differences between metro and non-metro area residents.

For both the metropolitan and nonmetropolitan regions, representative probability samples of residential telephone numbers were drawn from U.S. West's most current computer records of telephone listings in the state. Initial samples of 3,000 telephone listings were drawn for each of the two regions. Next, a systematic random sample of 450 telephone numbers was drawn from each of the two regional lists; these numbers comprised the primary sample of households designated for contact during the telephone interviewing effort. In cases where numbers in these primary sample lists were non-working, disconnected, or business numbers, where respondents could not be reached after multiple (minimum 6) contact attempts, or where a designated respondent refused to participate in the survey, a random replacement procedure was used to

select other unused numbers from the original sample lists for inclusion in the survey. This procedure continued until a total of 450 interviews were completed from both the metropolitan and nonmetropolitan regions of the state.

A final stage in the sampling process involved selection of an adult member (age 18 or older) of each household that was contacted during the telephone interview process. Interviewers were instructed to ask to speak with the member of the household who was 18 years of age or older and whose birthday had occurred most recently. This approach to sampling within households provides for a randomization of respondent selection, without the intrusiveness or time requirements associated with procedures that require an initial listing and enumeration of all household members prior to random selection of the designated respondent.

License purchasers samples. Because substantial proportions of the general public samples do not participate in traditional forms of wildlife-related recreation involving hunting or fishing, additional samples of resident hunting and fishing license purchasers were selected. Again, a stratified sampling approach was used to insure adequate representation of both metropolitan-area and nonmetropolitan license purchasers. DWR computerized files of 1997 hunting and fishing licenses were used to select first-stage samples of 600 resident hunting license purchasers residing in the metropolitan counties, 600 resident hunting license purchasers residing in nonmetropolitan counties, 600 resident fishing license purchasers residing in metropolitan counties, and 600 resident fishing license purchasers residing in nonmetropolitan counties. From each of these four lists, primary samples of 125 individual license purchasers were randomly selected. As with the general public sample, a random replacement sampling procedure was used to select other cases from the lists whenever a member of the primary sample could not be contacted due to an incorrect or changed telephone number, relocation to another area, death,

refusal to participate in the survey, etc. This replacement process was used until the targeted number of interviews (approximately 125 for each of the four license purchaser categories) had been completed.

Survey Administration

The telephone interviewing process was conducted by a staff of 12 Utah State University graduate and undergraduate students, most of whom had completed a graduate-level course in survey design and administration. Prior to initiation of data collection, all of the interviewers participated in a formal training session that included a review of project objectives, presentation of data collection procedures and guidelines, training in the use of the CATI system, and a practice interview session. All calls were placed from offices in the Department of Sociology, Social Work and Anthropology at Utah State University; interviewers were regularly monitored to insure consistency in interview procedures and to resolve any questions that arose as the interviews were conducted. Interviews were initiated on March 9 and continued until completion of the final interview on June 13, 1998. In order to minimize the effects of non-contact bias, multiple call-backs (a minimum of 6 call attempts) were made whenever a designated respondent could not be contacted when the initial call was placed.

The willingness of potential respondents to participate in the survey was slightly lower than had been experienced with some prior DWR surveys conducted by ISSRNR. This is likely a reflection of several factors, including a national trend of declining response rates for telephone surveys, the probable effects of a lengthy questionnaire (average completion time was over 22 minutes per interview), and the effects of spring weather and other seasonal events on the availability of potential respondents. Nevertheless, response rates were fairly good overall. A

total of 1,401 interviews were completed after calling 2,791 different telephone numbers, with many of those numbers called multiple times. Of the 2,791 numbers called, 436 were classified as being ineligible due to problems involving non-working or disconnected numbers, non-residential numbers, incorrect numbers, deceased or relocated residents, illness, language problems, etc. An additional 400 of the sampled numbers were replaced due to an inability to establish contact after multiple call-back attempts. For the general public sample, a total of 1,332 eligible respondents were contacted, and 901 interviews were completed, representing a response rate of 67.6% among those with whom contact was established; response rates were nearly identical for the metropolitan (67.3%) and nonmetropolitan (68.0%) portions of the sample. For the license purchaser samples, a total of 623 eligible license purchasers were contacted, and 500 interviews were completed, representing an overall response rate of 80.3%. Response rates for individual license purchaser categories were 80.1% for nonmetropolitan hunting license purchasers, 68.6% for metropolitan hunting license purchasers, 88.2% for nonmetropolitan fishing license purchasers, and 87.7% for metropolitan fishing license purchasers. The lower response rate for the metropolitan hunting licensees may be due in large part to the fact that many of those interview attempts coincided with the final rounds of the NBA playoff series involving the Utah Jazz; participation was substantially more difficult to secure during times when playoff games were scheduled.

Sample Characteristics

Several questions that asked respondents to provide information about themselves and their households provide a basis for characterizing the sociodemographic composition of the several sample groupings. Although the data on personal and household characteristics will be

useful in planned future analyses that will evaluate possible differences in attitudes and management preferences across various social and demographic groupings, in this report attention is focused only on a brief description of selected characteristics of respondents as a means of providing some context for evaluating potential similarities or differences across the several sample segments.

Age. Overall, respondents drawn from the metropolitan-area general public sample were slightly younger than those from the nonmetropolitan sample. For the metropolitan sample 38.6% of respondents were under 35, 21.4% were 35-44, 28% were 45-64, and 12% were age 65 or older. For the nonmetropolitan sample 32.8% were under 35, 21.6% were 35-44, 27.8% were 45-64, and 17.8% were age 65 or older. Both hunting and fishing license purchasers tended to be younger than were respondents from the general public sample; for the aggregated sample of all license purchasers (weighted to adjust for disproportionate sampling across metro/nonmetro areas and across license type categories) nearly one-fourth (24.3%) of respondents were under 25, while only 6.2% were 65 or older.

Sex. The general public sample as a whole mirrored the statewide distribution of male and female residents, with 49.4% of the respondents being men and 50.6% being women. As should be expected, hunting and fishing license purchasers were substantially more likely to be men; among the fishing license purchasers as a group 79.3% of respondents were men, while 91.3% of hunting license purchasers were men.

Length of residence in Utah. The mean length of residence among respondents drawn from the metropolitan-area general public sample was 30 years, with 17.4% of respondents reporting living in Utah for 10 years or less and 29.2% reporting residence of 40 years or longer. Similar results were obtained for nonmetropolitan-area residents, who reported a mean length of

residence in Utah of 30.9 years; 19% reported living in the state for 10 years or less and 28.9% reported 40 or more years of residence. License purchasers as a group exhibited similar patterns, with results from the aggregated statewide license purchaser sample revealing a mean length of residence in the state of 30.2 years.

Educational attainment. Metropolitan-area residents who were included in the general public sample reported overall high levels of educational attainment, with over three-fourths reporting some post-high school educational experience and over 31% reporting completion of a college degree and/or post-graduate college training. Educational attainment levels were only slightly lower among nonmetropolitan residents, with about 72% reporting post-high school educational training and about 29% reporting completion of a college or graduate degree. License purchasers as a group were somewhat less likely to report post-high school education (61.9%) or completion of a college degree or graduate training (24.1%); this difference is undoubtedly due at least in part to the inclusion in the license purchaser sample of some respondents under the age of 18 who were classified as "adults" when purchasing a resident hunting or fishing license.

Household characteristics. For the metropolitan area general public sample over two-thirds of respondents (68.6%) were married, nearly half (45.8%) reported the presence of children under 16 in the household, and the mean number of persons per household was 3.38. Nonmetropolitan residents exhibited very similar characteristics: 69.9% were married, 45.8% reported having children under 16 living in the household, and the mean household size was also 3.38. License purchasers as a group were more likely to be married (89.7%), more likely to have children under 16 living in their home (54.6%), and reported slightly larger numbers of persons living in their households (mean = 3.87).

FINDINGS

General Interest in Wildlife

The first question posed to respondents asked them to indicate their overall level of interest in wildlife, on a scale ranging from 0 ("no interest whatsoever") to 10 ("more interest than in anything else"). As indicated in Figures 1a and 1b and Table 1, overall levels of interest were fairly high among both the general public and hunting and fishing license purchasers.

For the weighted statewide general public sample as a whole, the mean response value on the 0 to 10 scale was 6.40, indicating moderately high levels of interest in wildlife. For the portion of the general public sample residing in the Wasatch Front metropolitan area, the mean response value was 6.34. Only 5.5% of metro public responses fell between 0 and 2, values which indicate very little or no interest in wildlife, while 32.5% of responses were between 8 and 10, indicating extremely high interest. A slightly higher overall level of interest was expressed by members of the nonmetropolitan general public sample -- the mean response value was 6.61, and only 4.3% of responses were between 0 and 2, while 37.1% fell between 8 and 10.

Hunting and fishing license purchasers as a group exhibited significantly higher levels of wildlife interest. For the combined statewide license purchaser sample (combining the metro and nonmetro hunting and fishing license samples, with responses statistically weighted to adjust for disproportionate sampling of each of these four groups), the mean response value was 7.58, with under 1% of responses falling in the 0 to 2 range (virtually no wildlife interest) and about 57% falling between 8 and 10, indicating extremely high interest. Metropolitan-area hunting license purchasers exhibited the highest average level of interest (mean response of 8.03, 0.8% of

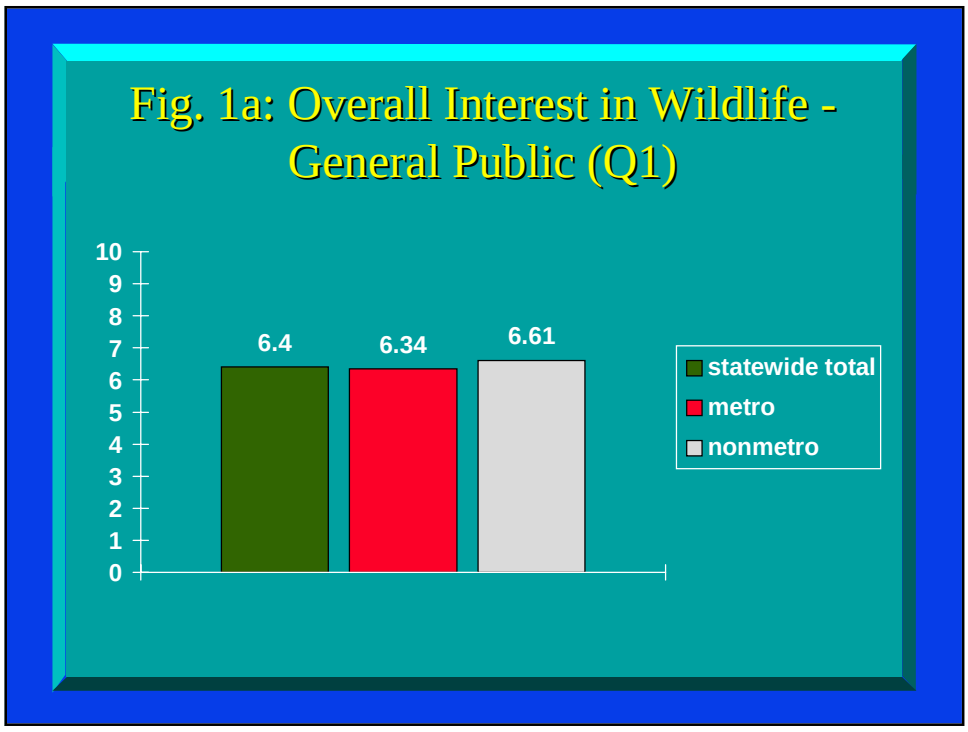


Fig. 1a: Overall Interest in Wildlife - General Public (Q1)
10
9
8
7
6
5
4
3
2
1
0
6.4
6.34
6.61
statewide total
metro
nonmetro

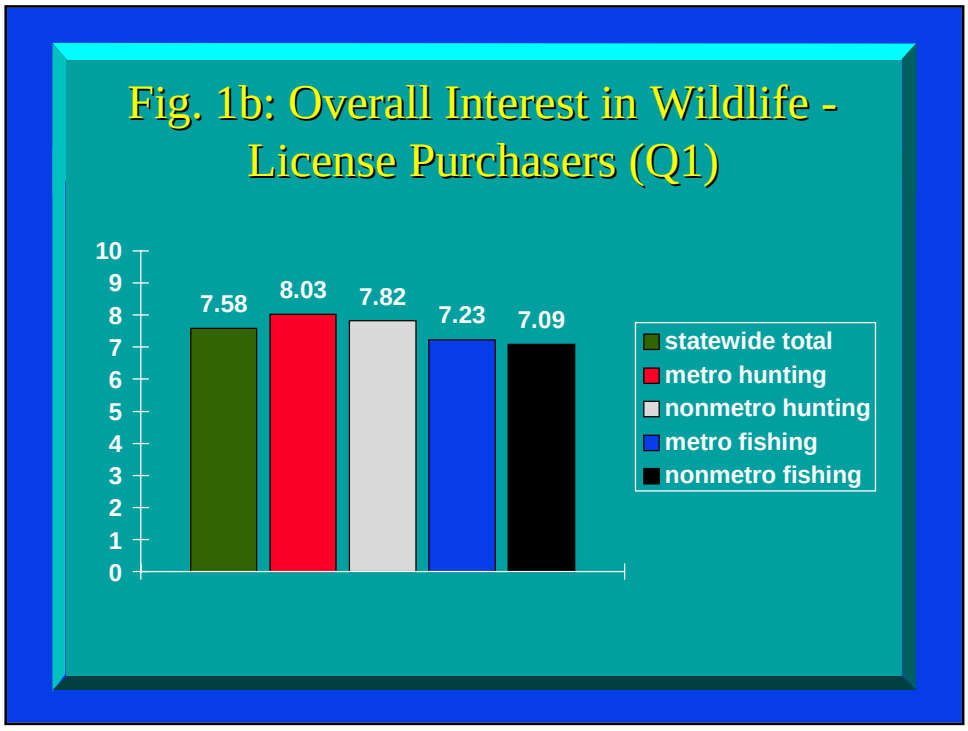


Fig. 1b: Overall Interest in Wildlife - License Purchasers (Q1)
10
9
8
7
6
5
4
3
2
1
0
7.58
8.03
7.82
7.23
7.09
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 1. Response distributions to question measuring overall levels of interest in wildlife, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (no interest whatsoever)	3.1	2.7	3.0	0.8	0.8	0.8	0.0	0.7
1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
2	2.2	1.4	2.0	0.0	0.0	0.0	0.8	0.1
3	3.7	3.2	3.6	0.0	1.6	1.7	2.4	1.2
4	7.0	7.7	7.2	0.0	0.8	0.8	5.5	1.2
5	17.1	15.4	16.7	3.9	4.8	7.4	10.2	6.2
6	16.0	12.9	15.3	5.5	7.2	14.9	14.2	10.3
7	18.0	19.5	18.3	20.5	20.0	26.4	24.4	23.0
8	19.1	19.0	19.1	37.8	32.8	33.1	22.8	33.1
9	4.8	5.9	5.1	10.2	15.2	9.9	7.9	10.8
10 (more interest than anything else)	8.6	12.2	9.4	21.3	16.8	5.0	11.8	13.3
Number of cases	455	442	1971*	127	125	121	127	945*
Mean response	6.34	6.61	6.40	8.03	7.82	7.23	7.09	7.58
Median response	7.00	7.00	7.00	8.00	8.00	7.00	7.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

responses between 0 and 2, 69.3% between 8 and 10), followed by nonmetropolitan hunting license purchasers (mean response 7.82, 0.8% between 0 and 2, 64.8% between 8 and 10). Both metropolitan area fishing license purchasers (mean response 7.23, 0.8% between 0 and 2, 48% between 8 and 10) and nonmetropolitan fishing license purchasers (mean 7.09, 0.8% in 0-2 range, 42.5% in 8-10 range) exhibited slightly lower interest levels than was the case for hunting license purchasers.

A similar question asked in a 1986 statewide survey conducted for DWR (see Krannich and Cundy, 1987) suggests that there has been a slight decline in overall levels of interest in wildlife among both the general public and license purchasers. Although that earlier survey used a somewhat different measurement approach (responses were scored on a 0-100 scale, as opposed to the 0-10 scale used in the current study), roughly comparable scale values can be calculated by dividing the values obtained in the 1986 survey by ten. This results in a mean "interest" score for the statewide general public sample of 7.47 (originally 74.7) in 1986, compared to 6.40 in 1998. Similarly, the mean interest score among license purchasers in 1986 was 7.94 (originally 79.4) in 1986, compared to 7.58 in 1998. Although the differences are not dramatic, they do suggest that some changes in levels of wildlife interest have occurred during the ten years separating the two survey periods.

Overall Satisfaction With Management

When asked to indicate their overall satisfaction with the way that wildlife and fish are currently being managed by the Division of Wildlife Resources, respondents generally indicated a moderate level of satisfaction. As indicated in Figure 2a and Table 2, the response distribution for the weighted statewide general public sample reveals that about 11% of responses are in the 0-2

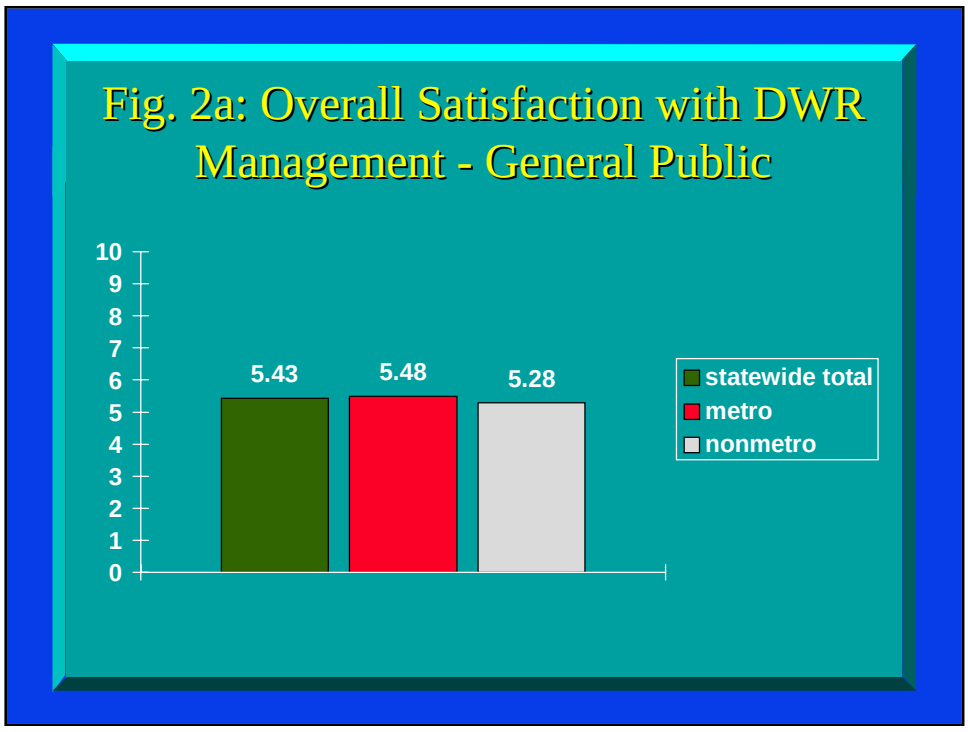


Fig. 2a: Overall Satisfaction with DWR Management - General Public
10
9
8
7
6
5
4
3
2
1
0
5.43
5.48
5.28
statewide total
metro
nonmetro

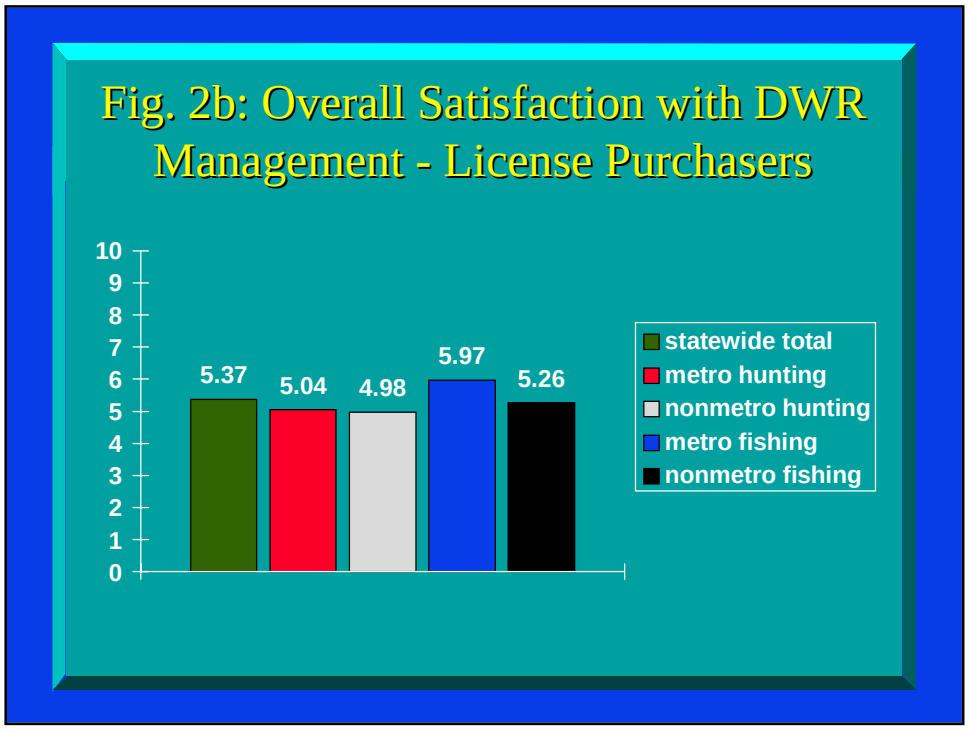


Fig. 2b: Overall Satisfaction with DWR Management - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.37
5.04
4.98
5.97
5.26
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 2. Response distributions to question measuring overall satisfaction with DWR management, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (completely dissatisfied)	4.5	5.3	4.7	4.8	1.6	1.8	5.1	3.2
1	0.8	2.9	1.3	1.6	4.1	2.7	2.5	2.6
2	4.8	4.4	4.7	8.8	4.9	4.5	5.9	6.1
3	7.3	7.1	7.3	5.6	16.4	3.6	9.3	7.7
4	7.6	9.4	8.0	12.8	12.3	11.7	8.5	11.8
5	25.4	27.9	26.0	24.8	25.4	12.6	18.6	20.0
6	13.0	13.2	13.0	15.2	7.4	21.6	16.9	16.0
7	18.9	11.5	17.3	16.0	14.8	14.4	16.9	15.3
8	12.7	11.2	12.4	6.4	9.8	13.5	11.0	10.1
9	2.5	2.4	2.5	1.6	0.8	9.0	2.5	4.1
10 (completely satisfied)	2.3	4.7	2.8	2.4	2.5	4.5	2.5	3.1
Number of cases	354	340	1529*	125	122	111	118	899*
Mean response	5.48	5.28	5.43	5.04	4.98	5.97	5.26	5.37
Median response	5.00	5.00	5.00	5.00	5.00	6.00	5.50	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

range; thus only a small minority of general public respondents indicated substantial dissatisfaction with DWR management efforts. A somewhat higher proportion of responses (17.7%) fell in the 8-10 range, corresponding to extremely high satisfaction. The most common response (26%) was the scale midpoint of 5, indicating a relatively neutral or ambivalent position regarding satisfaction with wildlife management in Utah. This is consistent with the fact that the weighted mean response value for the general public as a whole was 5.43, only slightly above the scale midpoint. Response patterns for the metropolitan area and nonmetropolitan general public samples were generally quite similar. For the metro-area sample the mean response value was 5.48, with 10.1% of responses in the 0-2 range and 17.5% in the 8-10 range. For nonmetropolitan respondents the mean was 5.28, with 12.6% of responses falling between 0 and 2 and 18.3% between 8 and 10.

Responses of hunting and fishing license purchasers to the question addressing satisfaction with DWR management are summarized in Figure 2b and Table 2. Overall, satisfaction levels among license purchasers were very similar to those expressed by the general public. For the combined sample of all license purchasers, the weighted mean response value was 5.37, with 11.9% of responses falling in the 0-2 range (highly dissatisfied) and 17.3% in the 8-10 range (highly satisfied). In general, those who bought hunting licenses were somewhat less satisfied than those who bought fishing licenses. For the metropolitan-area hunting license purchasers the mean response was 5.04, with 15.2% of responses in the 0-2 range and 10.4% in the 8-10 range. Similarly, the mean response for nonmetro-area hunting license purchasers was 4.98, with 10.6% of responses in the 0-2 range and 13.1% falling between 8 and 10. Metropolitan area fishing license purchasers were more likely to express satisfaction with DWR management -- for that sample the mean response value was 5.97, with 9% of responses falling between 0 and 2 and 27% between 8 and 10. Among nonmetro fishing license purchasers the mean response was closer to

the average level of satisfaction expressed by members of the general public; the mean response was 5.26, with 13.5% of responses in the 0-2 range and 16% in the 8-10 range.

Suggested Changes in DWR Management Efforts

In an effort to solicit ideas about possible new directions in wildlife management that might be of interest to various constituencies, survey participants were presented with an open-ended question asking if they could identify any particular thing that they would like to see changed in regard to how DWR manages fish and wildlife resources in Utah. Responses to this question ranged across a broad array of issues and themes, as indicated in Table 3. Because the number of responses in any single category is generally small, responses to this item have not been broken out across the various sample groups, but instead are reported for the aggregated samples of general public as well as license purchaser respondents.

The single largest response category (41% of all responses from the combined general public and license purchaser samples) was "no change," while the second-highest response total was "don't know" (9.7%). This indicates that even though Utahns appear to be only moderately satisfied overall with wildlife management in the state, most are unable to identify a specific change they would like to see implemented when they are presented with such a question.

Among the specific responses that were offered, the largest set of response categories (nearly one-fifth of all responses) involved various aspects of big game management. In this general grouping the most frequently-identified concerns had to do with general efforts to increase deer herds, suggestions that big game hunting be restricted to help herds recover, and changes in big game regulations and the procedures for tags/permit distribution.

A substantial number of comments (7.4% of all responses) focused on some aspects of

Table 3. Response distributions to question asking survey participants what changes they would like to see in how DWR manages fish and wildlife resources in Utah (percentages).

Response Value	Percent
License fees too expensive	3.0
Concerns over cost of habitat authorization	0.6
Licenses cost too little	0.1
General funding concerns	0.1
Funding spent improperly on administration, etc.	1.8
Habitat concerns	1.8
Information / education / public awareness concerns	0.9
Take into account more public input	0.9
Manage endangered / non-game species better	0.4
Concentrate less on endangered / non-game species	0.3
Law enforcement concerns - poaching	0.3
Law enforcement concerns - other	0.7
Predator management concerns	0.1
Decrease predator control	1.1
Increase predator control	0.5
Control predators to protect game species	0.3
Upland game / waterfowl concerns	0.4
Pheasant populations need attention	0.6

Table 3 continued:

Response Value	Percent
Improve fish management	1.6
Maintain or increase / improve stocking	1.7
Water / watershed quality concerns	0.7
More effort to prevent whirling disease	0.4
Relax fishing regulations	1.1
Tighten fishing regulations	1.1
Increase focus on native fisheries	0.4
Change time frame of fishing license	0.4
Big game management needs improvement	1.4
Manage deer herds better	4.6
Keep big game off highways & out of towns	1.0
Manage deer hunts differently	1.7
Concerns about buck to doe ratio	0.7
Elk permit / management changes	1.0
Restrict access / permits to big game hunting	2.7
Allow more access & opportunity to hunt big game	1.5
Change big game hunting regulations & tag sales	2.6
Concerns associated with draw system	1.5
Big game winter feeding concerns	0.5
General management concerns	3.2
Concerns that politics / special interests affect DWR	1.3
Concern that wildlife is placed above people	0.4
General sentiments	0.7
Miscellaneous	1.1
Irrelevant to DWR	1.4
No change	41.3
Don’t know	9.7
No response / refusal	0.4

fishing and fisheries resource management. In this grouping, the most frequently-cited issues involved interest in increased or improved fish stocking, and general interest in improved fishing conditions. Interestingly, identical numbers of respondents indicated that they would like to see fishing regulations/harvest limits relaxed vs. having regulations/limits tightened.

Other issues and changes identified with some frequency included expressions of concern that license fees are too expensive; an interest in seeing DWR funds spent more efficiently, with less emphasis on administration; and increased emphasis on habitat protection and enhancement, particularly in the face of development pressures.

Familiarity/Participation With Regional Advisory Council Process

Several years ago the Division of Wildlife Resources established a number of citizen advisory boards, referred to as Regional Wildlife Advisory Councils or 'RACs', as a way of obtaining public input about wildlife management issues. Several questions were included in the survey to assess levels of familiarity with and participation in the RAC process.

As indicated in Figures 3a and 3b, there was substantial variation in the extent to which survey respondents were aware of the existence of Regional Advisory Councils in the state. Figures derived from the weighted statewide general public sample indicate that only about 18% of adult Utahns have heard about the Regional Wildlife Advisory Councils. Awareness of the existence of the RACs was slightly higher among the nonmetropolitan general public (24.9%) than was the case for general public respondents in the metropolitan area of the state (16.4%). Overall awareness of the RAC program was also fairly low among the combined sample of hunting and fishing license purchasers (26.5% for the weighted statewide sample), due largely to very low levels of awareness among fishing license purchasers. Whereas awareness levels were

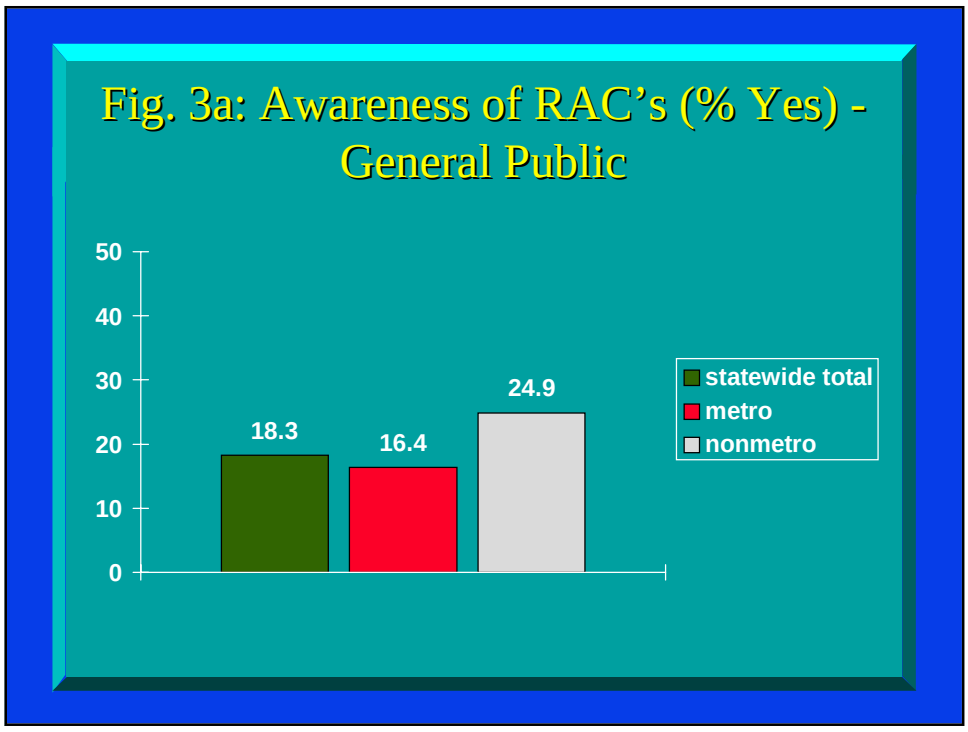


Fig. 3a: Awareness of RAC's (% Yes) - General Public
50
40
30
20
10
0
18.3
16.4
24.9
statewide total
metro
nonmetro

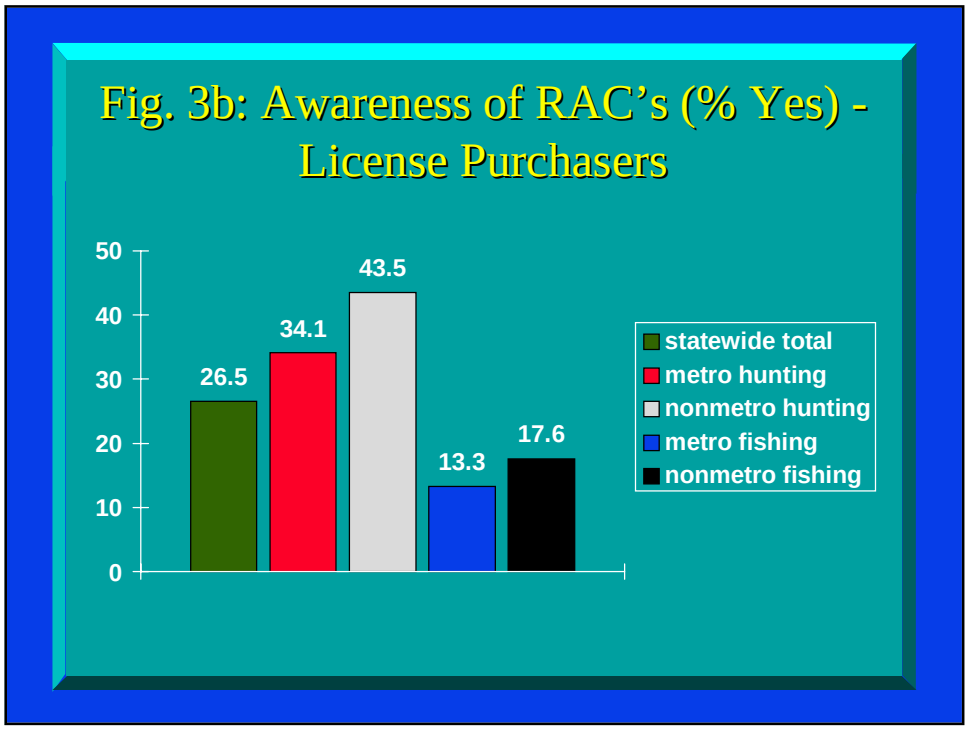


Fig. 3b: Awareness of RAC's (% Yes) - License Purchasers
50
40
30
20
10
0
26.5
34.1
43.5
13.3
17.6
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

fairly high among both metropolitan area hunting license purchasers (34.1%) and especially nonmetro-area hunting license purchasers (43.5%), awareness was quite low among both metro (13.3%) and nonmetro (17.6%) fishing license purchasers.

The minority of respondents who did indicate awareness of Regional Wildlife Advisory Councils were subsequently asked to indicate whether they had ever attended a RAC meeting. As indicated in Figures 4a and 4b, responses to this question also varied considerably across the various sample groups. Among the metropolitan-area general public respondents who had heard of RACs, only 11.7% indicated that they had ever attended a RAC meeting. A slightly higher proportion (19.1%) of the nonmetropolitan general public respondents who had heard of RACs indicated that they had attended at least one meeting. Substantially higher proportions of metropolitan-area hunting license purchasers (34.9%) and nonmetropolitan hunting license purchasers (38.2%) who had heard of RACs indicated meeting attendance. Among metro-area fishing license purchasers only a small fraction (6.3%) of those who had heard of RACs indicated meeting attendance, while a substantially higher proportion (33.3%) of non-metropolitan fishing license purchasers who had heard of the program indicated that they had attended one or more meetings.

Given the very small number of respondents in some categories, these results must be interpreted with caution. Nevertheless, the results clearly indicate fairly low familiarity with the Regional Advisory Councils, and fairly low levels of participation in RAC meetings among those who are aware of their existence. Fishing license purchasers in particular are surprisingly unaware of the RAC process, and generally unlikely to have participated. When those respondents who were aware of RACs were asked to indicate why they had not attended a RAC meeting, the most common explanation (45% of both general public and license purchaser responses) was that they

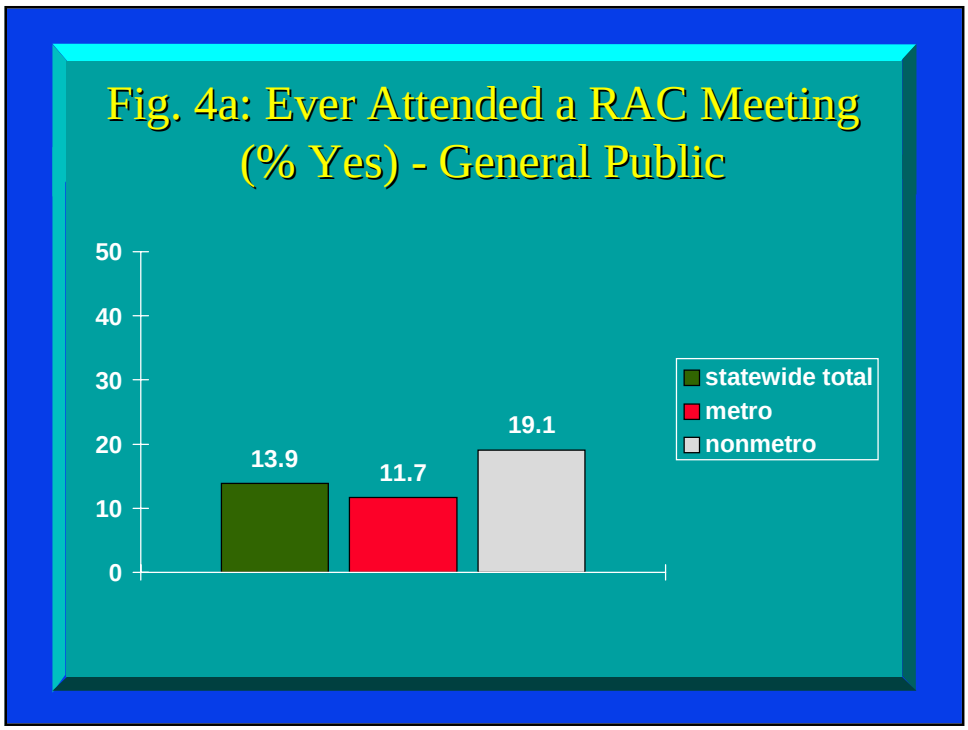


Fig. 4a: Ever Attended a RAC Meeting (% Yes) - General Public
50
40
30
20
10
0
13.9
11.7
19.1
statewide total
metro
nonmetro

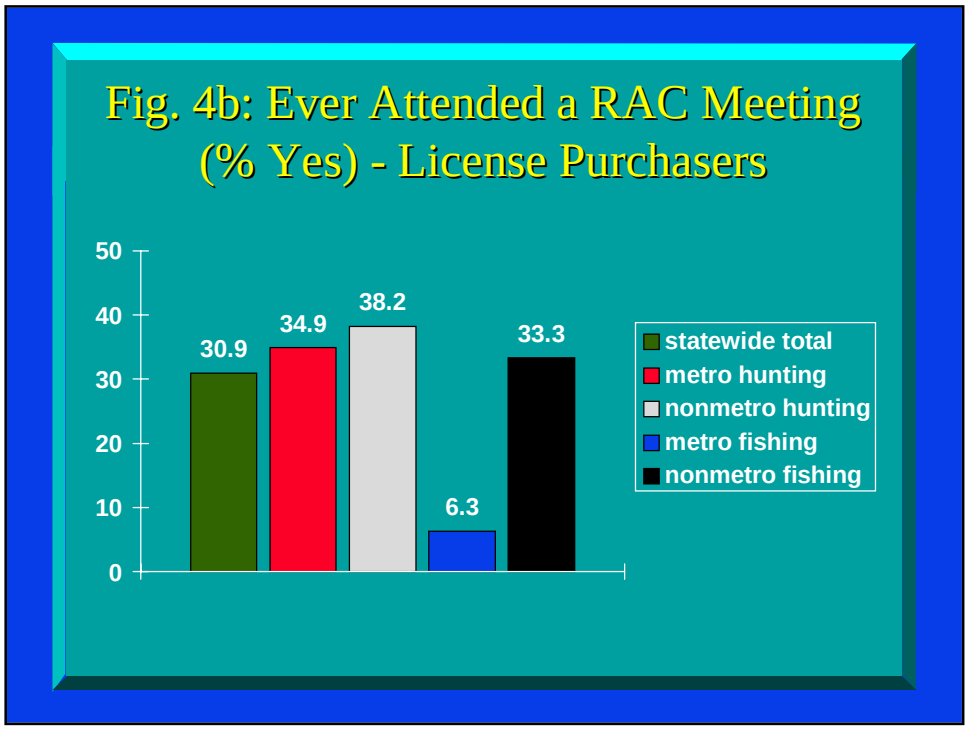


Fig. 4b: Ever Attended a RAC Meeting (% Yes) - License Purchasers
50
40
30
20
10
0
30.9
34.9
38.2
6.3
33.3
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

were not aware of when or where meetings were held. A relatively small number of respondents (10% of the general public responses and 14% of license purchasers) indicated that they did not attend because they were not convinced that input provided through the RAC process would have any impact on management decisions.

Evaluations of DWR Effectiveness

A series of eight questions were posed to assess respondents' views about the effectiveness of the Division of Wildlife Resources in providing various types of opportunities or programs. In the interest of survey time constraints, the samples were split using a random allocation procedure so that approximately one-half of respondents were asked the first four questions in this series, while the other half were presented with the last four questions in the series. As a result, total numbers of responses are reduced for all of the comparisons derived from this segment of the survey.

Provision of wildlife observation opportunities. The first question in this segment asked respondents to evaluate DWR's effectiveness in creating opportunities to observe wildlife in natural settings; responses were measured on a scale ranging from 0 ("not at all effective") to 10 ("extremely effective"). As indicated in Figures 5a and 5b and Table 4, respondents were moderately positive about DWR's effectiveness in this area. For the general public as a whole (Figure 5a), the weighted mean response value of 5.96 indicates a tendency to view DWR as being moderately successful in providing wildlife observation opportunities. Overall, for the general public statewide there was only a limited tendency to express beliefs that DWR was very ineffective in providing wildlife observation opportunities (7.3% of responses were between 0 and 2), while a substantially larger proportion of Utahns believe that DWR is highly effective in this

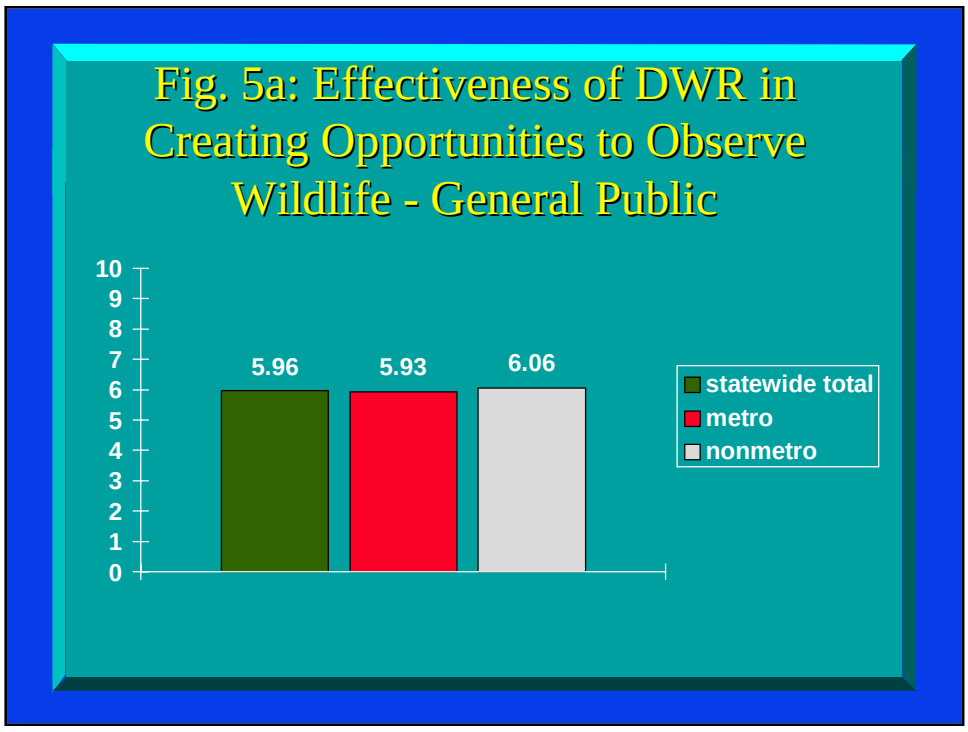


Fig. 5a: Effectiveness of DWR in Creating Opportunities to Observe Wildlife - General Public
10
9
8
7
6
5
4
3
2
1
0
5.96
5.93
6.06
statewide total
metro
nonmetro

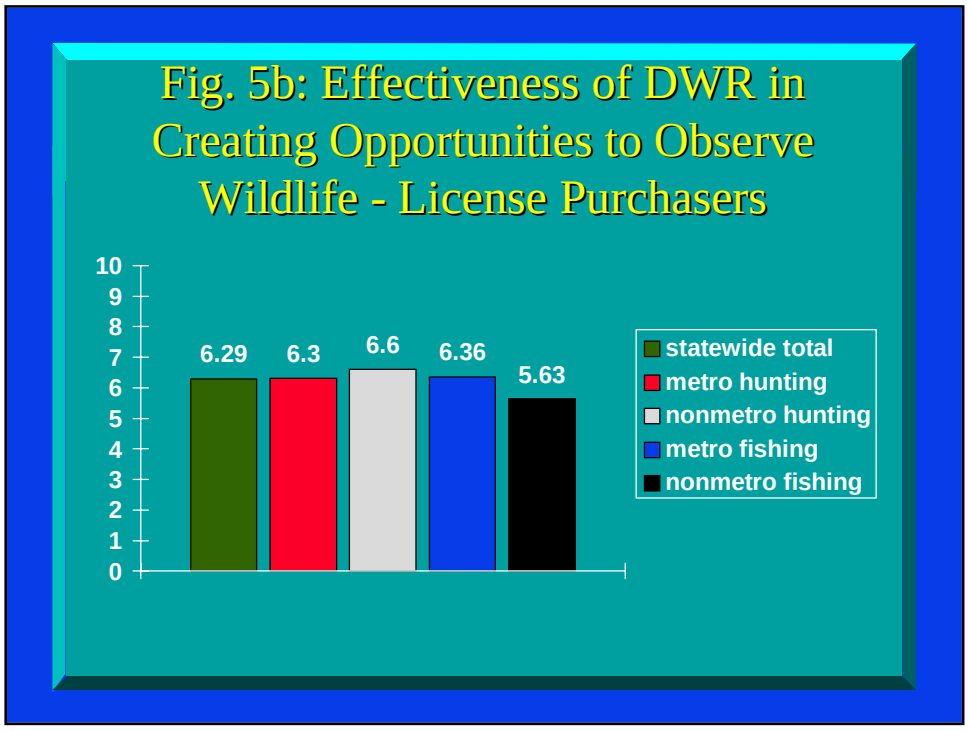


Fig. 5b: Effectiveness of DWR in Creating Opportunities to Observe Wildlife - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.29
6.3
6.6
6.36
5.63
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 4. Response distributions to question measuring attitudes about DWR effectiveness in creating wildlife viewing opportunities, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	3.8	3.8	3.8	3.5	0.0	3.6	6.8	3.3
1	1.1	0.5	1.0	0.0	1.8	1.8	1.7	1.2
2	2.7	1.6	2.5	5.3	1.8	1.8	3.4	3.1
3	7.1	8.2	7.3	3.5	0.0	5.5	5.1	3.7
4	4.9	4.9	4.9	7.0	3.6	5.5	5.1	5.5
5	19.1	21.2	19.6	15.8	23.6	12.7	13.6	16.0
6	16.4	13.0	15.6	10.5	23.6	12.7	20.3	15.3
7	20.2	16.8	19.4	19.3	12.7	18.2	30.5	19.1
8	16.4	20.1	17.2	21.1	14.5	21.8	8.5	18.3
9	3.3	2.7	3.1	5.3	7.3	12.7	3.4	8.1
10 (extremely effective)	4.9	7.1	5.4	8.8	10.9	3.6	1.7	6.4
Number of cases	183	184	799*	57	55	55	59	426*
Mean response	5.93	6.06	5.96	6.30	6.60	6.36	5.63	6.29
Median response	6.00	6.00	6.00	7.00	6.00	7.00	6.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

area (25.7% of responses fell between 8 and 10). Responses for the metropolitan-area general public sample were slightly less positive than those for the nonmetropolitan sample; the metro sample mean was 5.93, while for the nonmetro sample the mean was 6.06.

As summarized in Figure 5b, hunting and fishing license purchasers overall were slightly more positive about DWR effectiveness in this area (weighted mean of 6.29; 7.6% in 0-2 range, 32.8% in 8-10 range). The lowest effectiveness rating among license purchasers was reported by nonmetropolitan-area fishing license purchasers (mean response of 5.63); the highest rating occurred among nonmetropolitan hunting license purchasers (mean response of 6.60).

Provision of fishing opportunities. When asked to rate DWR's effectiveness in providing opportunities for people to fish and catch fish survey respondents generally provided relatively high effectiveness ratings, as reported in Figures 6a and 6b and Table 5. For the general public statewide, the mean response to this item was 7.01, with only 4.6% of responses falling in the "very ineffective" range (0-2) of the response scale and 50.1% falling in the "very effective" (8-10) range. Metropolitan-area general public respondents were slightly more positive about this issue (mean = 7.05, 50.6% of responses in 8-10 range) than were nonmetropolitan respondents (mean = 6.87, 44.9% of responses in 8-10 range).

Hunting and fishing license purchasers as a group were also quite positive in their evaluations of DWR effectiveness in providing fishing opportunities. For the weighted sample of all license purchasers the mean response value was 7.12, with only 3.7% of respondents falling between 0 and 2 and 49.3% in the 8-10 range. The most positive response tendencies occurred among metropolitan-area hunting license purchasers (mean = 7.53) and nonmetro hunting license purchasers (mean = 7.28), while slightly lower effectiveness ratings were provided by metro-area fishing license purchasers (mean = 6.97) and nonmetro fishing license purchasers (mean = 6.45).

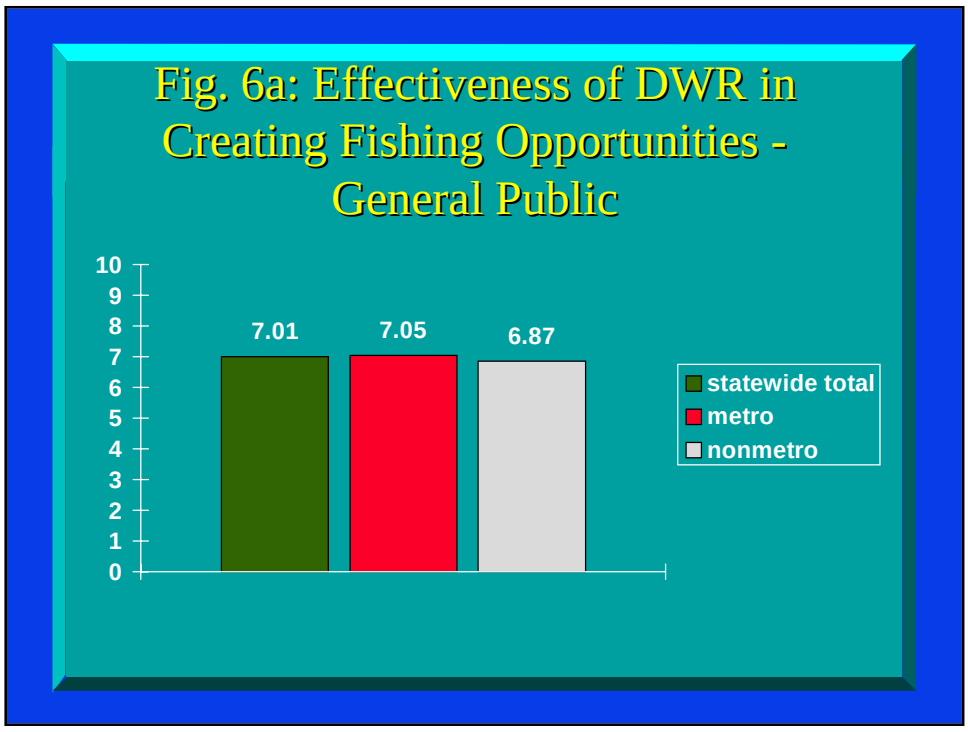


Fig. 6a: Effectiveness of DWR in Creating Fishing Opportunities - General Public
10
9
8
7
6
5
4
3
2
1
0
7.01
7.05
6.87
statewide total
metro
nonmetro

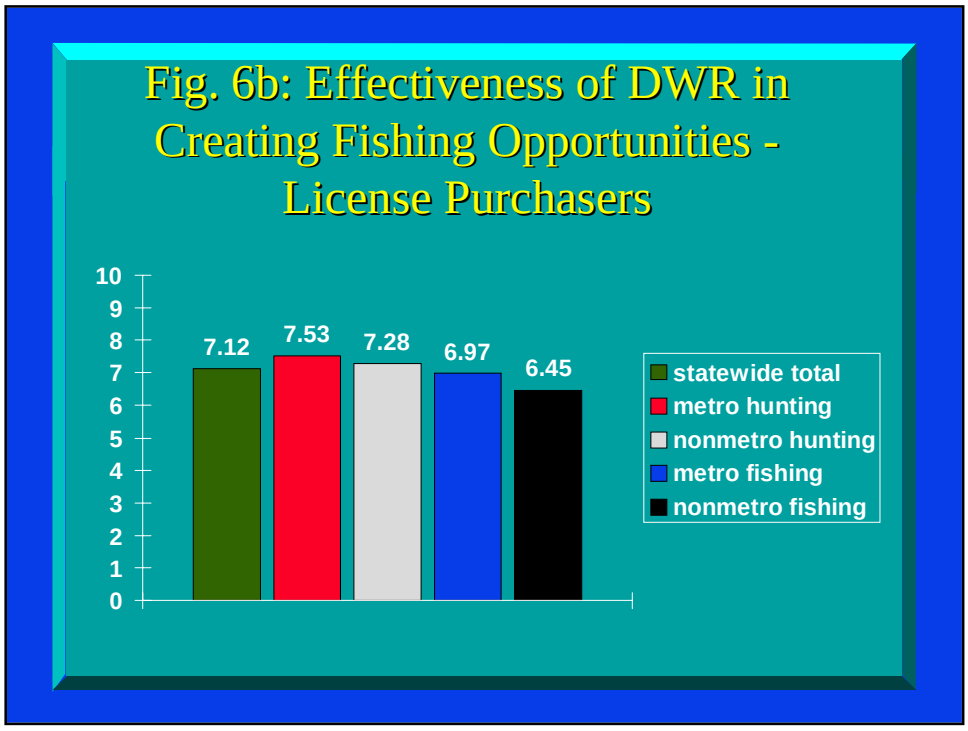


Fig. 6b: Effectiveness of DWR in Creating Fishing Opportunities - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.12
7.53
7.28
6.97
6.45
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 5. Response distributions to question measuring attitudes about DWR effectiveness in creating fishing opportunities, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	3.9	3.2	3.8	0.0	0.0	3.3	0.0	1.2
1	0.0	0.5	0.1	1.8	3.3	1.7	0.0	1.8
2	0.5	1.6	0.7	0.0	0.0	0.0	4.7	0.7
3	2.0	4.3	2.5	3.5	1.6	0.0	3.1	1.8
4	2.0	2.1	2.0	3.5	3.3	3.3	6.3	3.8
5	10.3	10.2	10.3	8.8	6.6	11.7	17.2	10.5
6	12.3	10.7	11.9	5.3	11.5	16.7	20.3	12.8
7	17.6	22.5	18.7	22.8	13.1	18.3	15.6	18.2
8	30.9	25.1	29.7	17.5	44.3	21.7	17.2	24.6
9	10.8	9.1	10.4	17.5	4.9	11.7	9.4	11.6
10 (extremely effective)	9.8	10.7	10.0	19.3	11.5	11.7	6.3	13.1
Number of cases	204	187	872*	57	61	60	64	454*
Mean response	7.05	6.87	7.01	6.30	7.53	6.97	6.45	7.12
Median response	8.00	7.00	8.00	7.00	8.00	7.00	6.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

Provision of hunting opportunities. Overall, survey respondents rated DWR as being moderately effective in providing opportunities for people to hunt (see Figures 7a and 7b and Table 6). For the state as a whole, mean rating provided by the general public was 6.26, with 8.5% of responses corresponding to a "very ineffective" rating and over 35% corresponding to a "very effective" rating. General public respondents in the metropolitan area of Utah were slightly more positive about DWR's effectiveness in providing hunting opportunities (mean = 6.31, 35.3% in 8-10 range) than were nonmetro-area respondents (mean = 6.08, 35.0% in 8-10 range).

License purchasers as a group were slightly less positive about DWR effectiveness in providing hunting opportunities (weighted mean = 5.67) than was the case among the general public. Effectiveness ratings were lowest for metropolitan-area hunting license purchasers (mean = 5.49, 25.5% in 8-10 range), with slightly more positive ratings provided by nonmetropolitan hunting license buyers (mean = 5.78), metropolitan-area fishing license buyers (mean = 5.66), and nonmetro fishing license buyers (mean = 5.93).

Enforcing laws to protect wildlife. Response patterns to an item asking about DWR effectiveness in enforcing laws designed to protect Utah's wildlife are summarized in Figures 8a and 8b and Table 7. For the Utah general public as a whole, DWR is rated as being moderately effective in terms of this aspect of law enforcement: the mean response value was 6.41, with only 8% of responses in the "very ineffective" range (0-2) and slightly over 40 percent in the "very effective" range (8-10). Effectiveness in law enforcement was rated similarly by respondents from the metropolitan (mean = 6.38, 39.9% "very effective" ratings) and nonmetropolitan (mean = 6.53, 43.8% "very effective" ratings) portions of the state.

License purchasers as a group provided slightly higher ratings overall of DWR's law enforcement effectiveness -- the weighted mean response for the combined sample of license

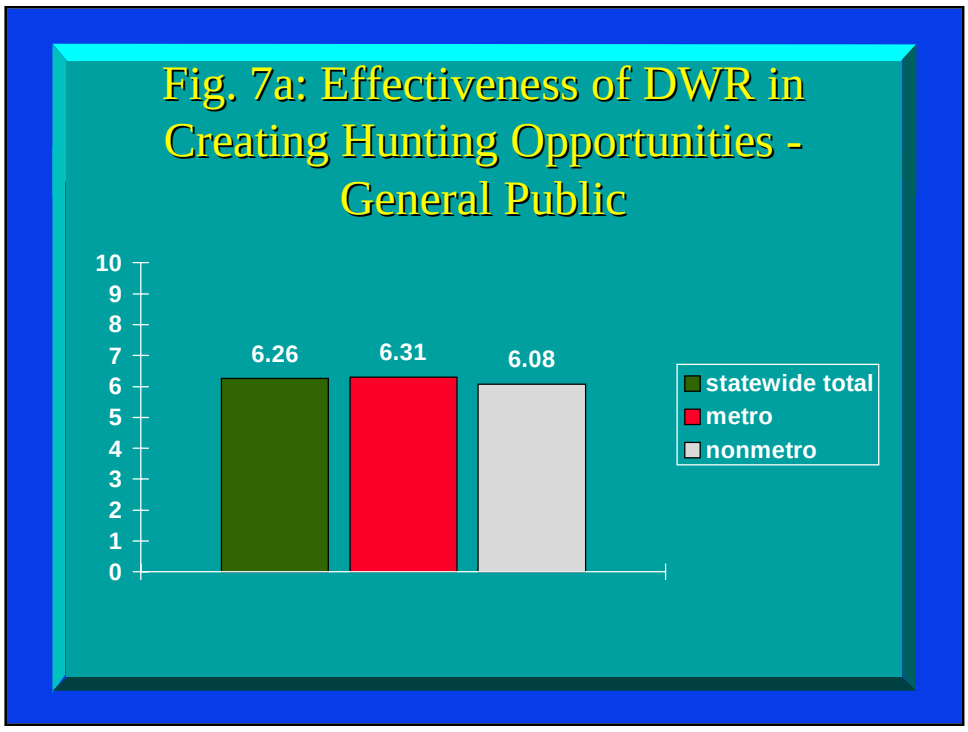


Fig. 7a: Effectiveness of DWR in Creating Hunting Opportunities - General Public
10
9
8
7
6
5
4
3
2
1
0
6.26
6.31
6.08
statewide total
metro
nonmetro

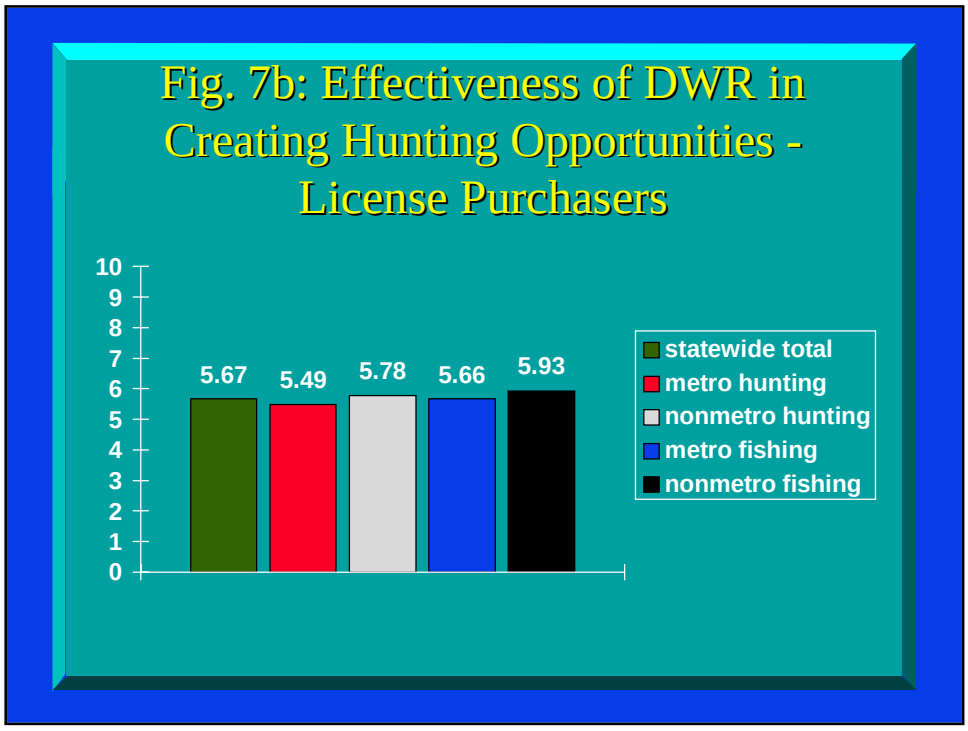


Fig. 7b: Effectiveness of DWR in Creating Hunting Opportunities - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.67
5.49
5.78
5.66
5.93
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 6. Response distributions to question measuring attitudes about DWR effectiveness in creating hunting opportunities, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	5.6	4.6	5.4	8.5	1.7	4.0	1.9	4.6
1	0.5	2.1	0.9	3.4	5.0	4.0	0.0	3.5
2	2.1	2.6	2.2	3.4	1.7	4.0	5.6	3.5
3	4.1	5.2	4.3	6.8	5.0	2.0	7.4	4.9
4	6.2	8.8	6.7	8.5	10.0	8.0	11.1	9.0
5	14.4	17.5	15.1	16.9	16.7	18.0	20.4	17.7
6	11.8	9.3	11.2	15.3	25.0	24.0	7.4	19.3
7	20.0	14.9	18.8	11.9	13.3	16.0	18.5	14.4
8	21.0	21.1	21.1	11.9	10.0	12.0	13.0	11.6
9	4.6	6.2	5.0	5.1	8.3	6.0	13.0	7.1
10 (extremely effective)	9.7	7.7	9.3	8.5	3.3	2.0	1.9	4.4
Number of cases	195	194	849*	59	60	50	54	420*
Mean response	6.31	6.08	6.26	5.49	5.78	5.66	5.93	5.67
Median response	7.00	6.50	7.00	6.00	6.00	6.00	6.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

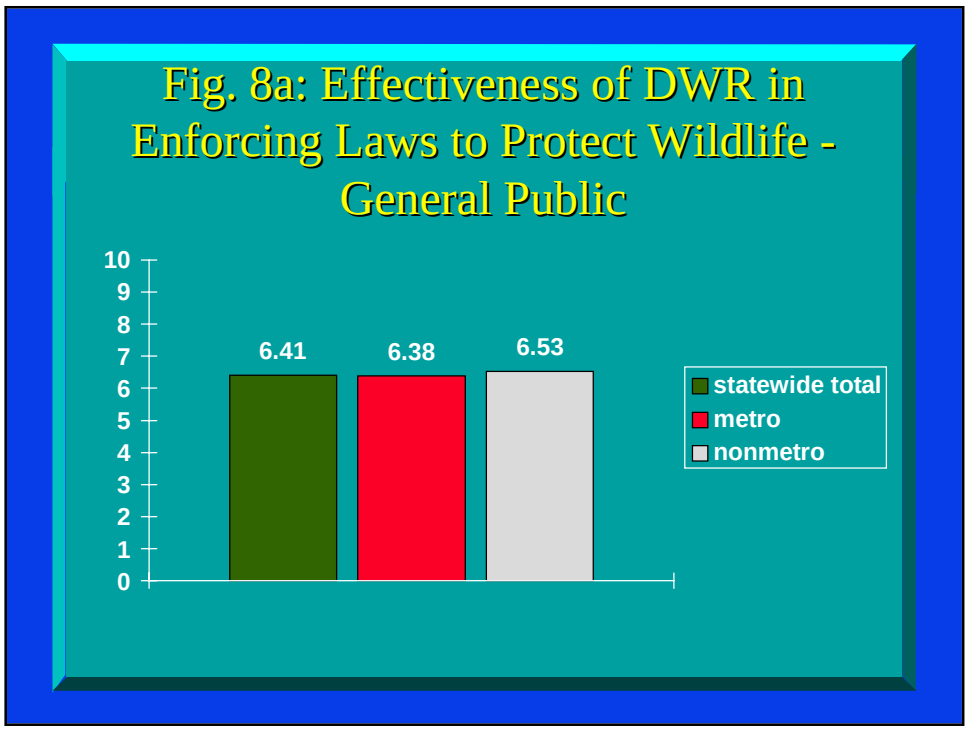


Fig. 8a: Effectiveness of DWR in Enforcing Laws to Protect Wildlife - General Public
10
9
8
7
6
5
4
3
2
1
0
6.41
6.38
6.53
statewide total
metro
nonmetro

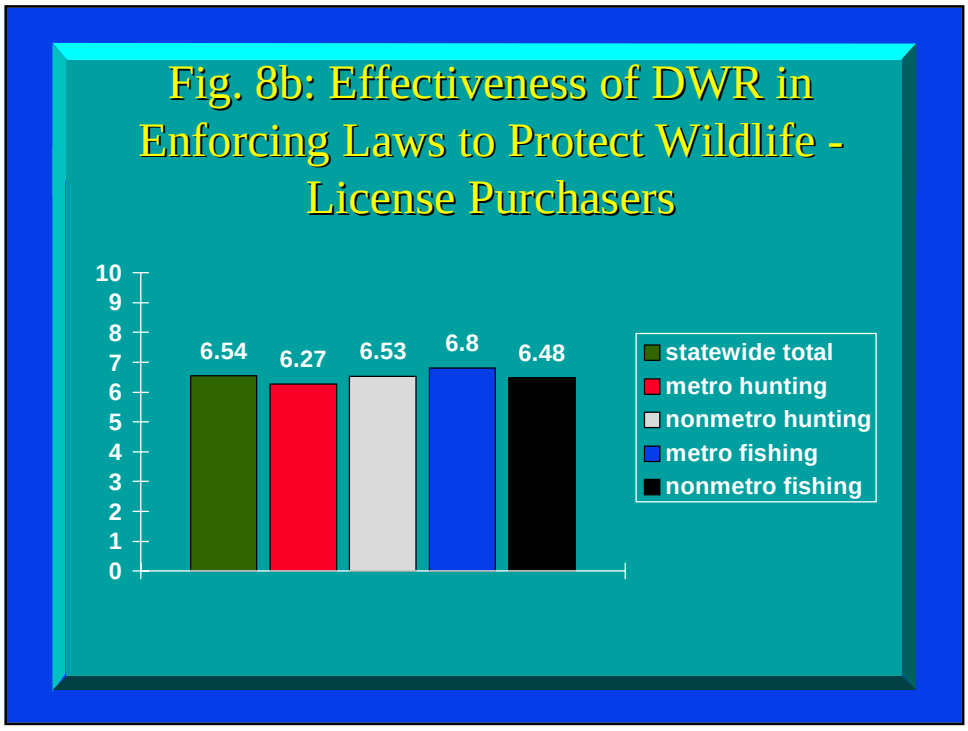


Fig. 8b: Effectiveness of DWR in Enforcing Laws to Protect Wildlife - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.54
6.27
6.53
6.8
6.48
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 7. Response distributions to question measuring attitudes about DWR effectiveness in enforcing laws, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	4.7	3.8	4.5	1.8	1.7	3.6	1.6	2.4
1	1.0	0.0	0.8	1.8	1.7	0.0	1.6	1.1
2	2.1	4.9	2.7	3.6	3.4	3.6	1.6	3.3
3	3.1	5.4	3.6	10.7	8.5	3.6	8.1	7.3
4	6.2	5.9	6.2	3.6	6.8	3.6	6.5	4.7
5	16.1	10.8	14.9	16.1	11.9	10.7	8.1	12.2
6	10.4	9.2	10.1	14.3	8.5	8.9	12.9	11.0
7	16.6	16.2	16.5	8.9	13.6	21.4	22.6	16.3
8	26.4	23.8	25.8	17.9	23.7	19.6	17.7	19.7
9	6.2	9.7	7.0	14.3	6.8	16.1	17.7	13.8
10 (extremely effective)	7.3	10.3	7.9	7.1	13.6	8.9	1.6	8.3
Number of cases	193	185	833*	56	59	56	62	436*
Mean response	6.38	6.53	6.41	6.27	6.53	6.80	6.48	6.54
Median response	7.00	7.00	7.00	6.00	7.00	7.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

purchasers was 6.54, with 41.8% of responses falling between 8 and 10. Metropolitan-area hunting license purchasers provided a slightly lower rating (mean = 6.27) than did nonmetropolitan hunting license buyers (mean = 6.53); metropolitan fishing license purchasers provided a higher rating (mean = 6.80) than did those from nonmetropolitan areas of the state (mean = 6.48).

Provision of information and education programs. Figures 9a and 9b and Table 8 summarize ratings of DWR effectiveness in developing information and education programs that help Utahns understand and support wildlife conservation efforts.

Overall, DWR was rated by Utahns as being only moderately effective in providing information and education programs. For the weighted statewide sample combining responses from metropolitan and nonmetropolitan areas the mean response value was just 5.54. However, responses were far more likely to be positive rather than very negative: only 10% of responses indicated very low effectiveness ratings (responses of 0-2), while 24% were in the high effectiveness (8-10) range. Ratings provided by members of the metropolitan-area general public sample were somewhat lower (mean = 5.49) than was the case for those from the nonmetropolitan segment of the general public (mean = 5.71).

Slightly higher overall ratings of DWR effectiveness in providing information and education programs were provided by license purchasers as a group (weighted mean = 5.90; 3% of ratings in 0-2 range, 20.8% in 8-10 range). Metro-area hunting license purchasers provided slightly lower effectiveness ratings overall (mean = 5.94) than did their nonmetropolitan counterparts (mean = 6.12). Similarly, metro-area fishing license purchasers rated agency effectiveness in these types of activities lower (mean = 5.64) than did those from nonmetropolitan areas of Utah (mean = 6.15).

Fig. 9a: Effectiveness of DWR in Developing Information & Education Programs - General Public

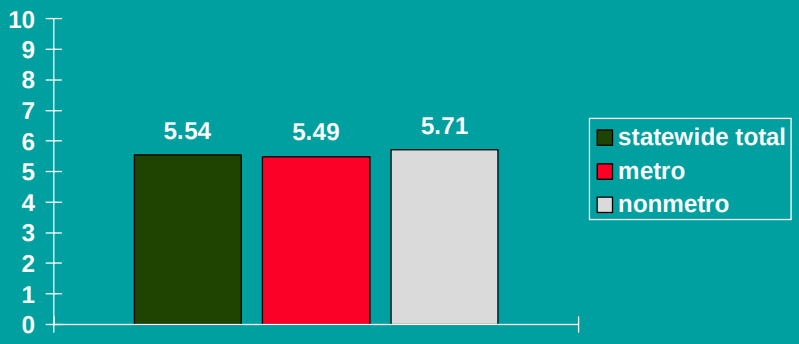


Fig. 9b: Effectiveness of DWR in Developing Information & Education Programs - License Purchasers

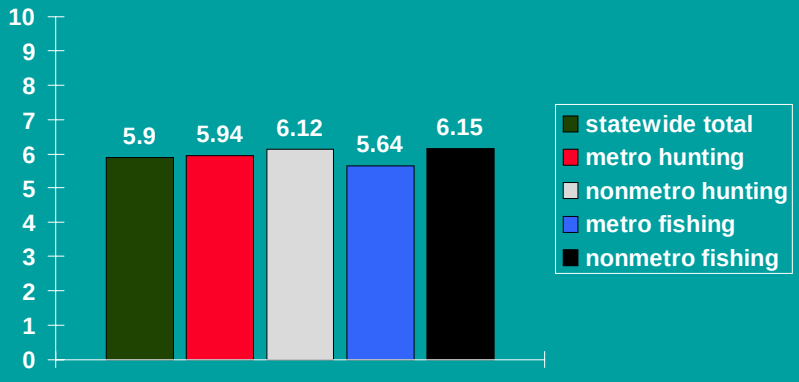


Table 8. Response distributions to question measuring attitudes about DWR effectiveness in educating the public, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	2.0	3.5	2.3	1.5	1.7	0.0	0.0	0.9
1	1.5	1.2	1.4	0.0	1.7	0.0	0.0	0.3
2	6.5	5.8	6.4	3.0	1.7	0.0	3.6	1.8
3	11.1	8.1	10.5	10.6	1.7	5.5	9.1	6.8
4	9.5	11.6	10.0	7.6	11.7	14.5	5.5	10.5
5	18.1	18.0	18.1	18.2	20.0	36.4	21.8	25.1
6	16.1	8.7	14.6	13.6	18.3	18.2	16.4	16.5
7	12.6	14.0	12.8	22.7	16.7	12.7	16.4	17.3
8	17.6	19.2	17.9	13.6	18.3	9.1	12.7	13.0
9	2.5	5.2	3.1	6.1	1.7	0.0	10.9	3.7
10 (extremely effective)	2.5	4.7	3.0	3.0	6.7	3.6	3.6	4.1
Number of cases	199	172	841*	66	60	55	55	451*
Mean response	5.49	5.71	5.54	5.94	6.12	5.64	6.15	5.90
Median response	6.00	6.00	6.00	6.00	6.00	5.00	6.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

Effectiveness in protecting and improving habitat. One question in the series of effectiveness questions asked respondents to indicate how effective they believed DWR has been in protecting and improving important wildlife habitat areas in Utah. Results derived from this question are summarized in Figures 10a and 10b and Table 9.

When the general public is considered as a whole, responses to this item indicate a tendency to evaluate DWR as being moderately effective in protecting and improving wildlife habitat. The weighted mean for the combined statewide general public sample was 6.11, with most responses falling between 5 and 8 on the response scale. Metro-area response tendencies (mean = 6.12; 26.7% of responses in 8-10 range) were very similar to those observed for the nonmetropolitan general public sample (mean = 6.08; 24% of responses between 8 and 10).

Slightly more positive ratings were provided by license purchasers as a group (weighted mean = 6.26). Mean ratings were highest among nonmetropolitan fishing license buyers (6.79), slightly lower for metro-area hunting (6.22) and fishing (6.26) license buyers, and lowest (6.03) among nonmetro hunting license purchasers. In all of these groups, relatively few license purchasers rated DWR as being very ineffective in its efforts to protect and improve habitat, while roughly one-third rated the agency as very effective.

Protecting/improving populations of non-hunted species. Figures 11a and 11b and Table 10 present data on responses to an item requesting evaluation of DWR effectiveness in protecting and improving populations of wildlife that people do not hunt for. Moderate effectiveness ratings are evident for the combined statewide general public sample (mean = 6.23; 29.4% in 8-10 range), with relatively little difference in overall response between the metropolitan-area segment of the general public (mean = 6.25) and Utahns from nonmetropolitan portions of the state (mean = 6.16). Slightly higher effectiveness ratings were provided by hunting/fishing license purchasers

Fig. 10a: Effectiveness of DWR in Protecting and Improving Habitat - General Public

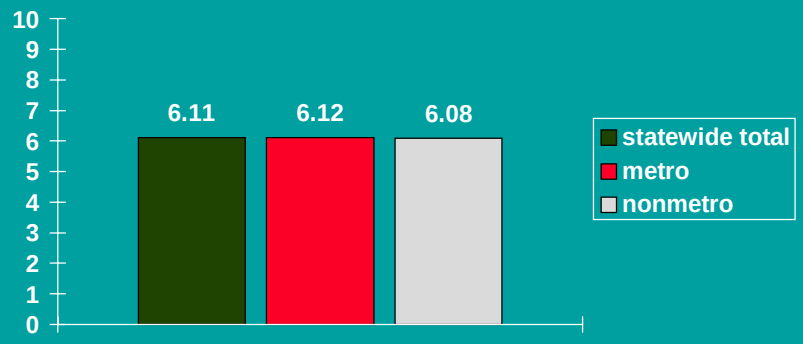


Fig. 10b: Effectiveness of DWR in Protecting and Improving Habitat - License Purchasers

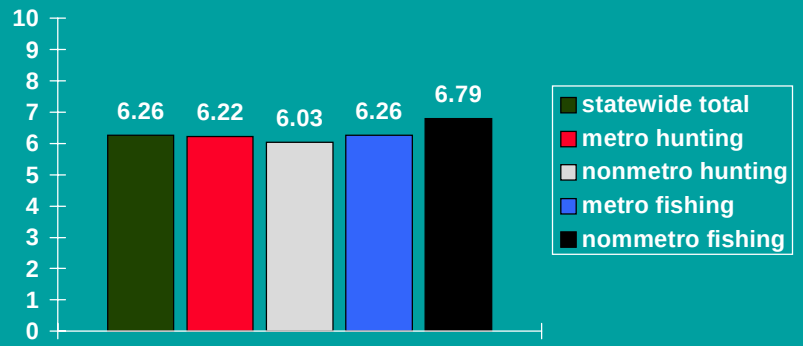


Table 9. Response distributions to question measuring attitudes about DWR effectiveness in protecting habitat, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	2.1	2.2	2.1	1.6	1.6	0.0	5.8	1.6
1	0.5	0.5	0.5	3.2	4.8	0.0	0.0	2.1
2	3.1	2.7	3.0	3.2	4.8	3.8	0.0	3.4
3	6.7	6.6	6.7	3.2	6.5	1.9	0.0	3.1
4	6.2	9.8	7.0	6.3	4.8	9.4	1.9	6.5
5	19.6	13.1	18.2	14.3	17.7	24.5	13.5	18.4
6	13.9	16.9	14.6	19.0	12.9	17.0	17.3	16.8
7	21.1	24.0	21.8	17.5	14.5	17.0	25.0	17.5
8	14.9	14.2	14.8	20.6	16.1	13.2	17.3	16.8
9	7.2	4.9	6.7	6.3	8.1	5.7	5.8	6.4
10 (extremely effective)	4.6	4.9	4.7	4.8	8.1	7.5	13.5	7.4
Number of cases	194	183	835*	63	62	53	52	438*
Mean response	6.12	6.08	6.11	6.22	6.03	6.26	6.79	6.26
Median response	6.00	6.00	6.00	6.00	6.00	6.00	7.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

Fig. 11a: Effectiveness of DWR in Protecting Non-Hunted Populations - General Public

Fig. 11b: Effectiveness of DWR in Protecting Non-Hunted Populations - License Purchasers

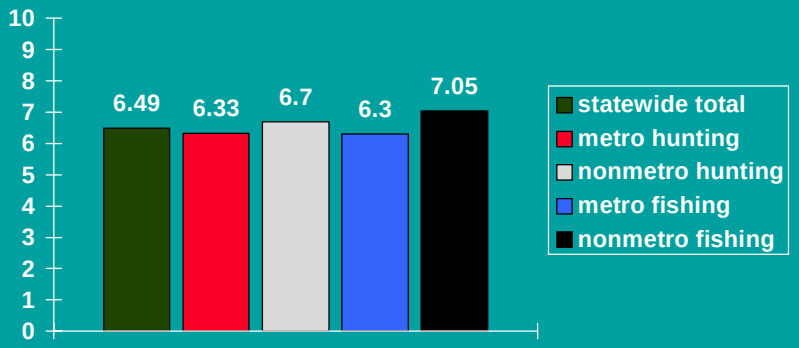


Table 10. Response distributions to question measuring attitudes about DWR effectiveness in protecting nonhunted populations, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	2.1	1.3	1.9	1.9	6.4	2.7	7.1	3.8
1	0.7	0.0	0.5	1.9	0.0	0.0	0.0	0.7
2	1.4	4.5	2.1	3.8	0.0	2.7	2.4	2.5
3	2.8	5.2	3.3	3.8	0.0	2.7	0.0	2.2
4	10.3	9.1	10.0	5.8	2.1	5.4	2.4	4.4
5	20.7	19.5	20.4	15.4	14.9	24.3	7.1	17.0
6	13.1	11.0	12.6	11.5	12.8	10.8	14.3	11.9
7	19.3	20.8	19.7	21.2	25.5	18.9	14.3	20.6
8	19.3	16.2	18.6	23.1	21.3	21.6	19.0	21.7
9	3.4	7.1	4.3	5.8	8.5	5.4	16.7	7.6
10 (extremely effective)	6.9	5.2	6.5	5.8	8.5	5.4	16.7	7.6
Number of cases	145	154	641*	52	47	37	42	336*
Mean response	6.25	6.16	6.23	6.33	6.70	6.30	7.05	6.49
Median response	6.00	6.00	6.00	7.00	7.00	7.00	8.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

statewide (mean = 6.49; 36.9% in 8-10 range), with ratings provided by individual license purchaser groups ranging from a mean of 6.30 (metropolitan fishing license purchasers) to 7.05 (nonmetropolitan fishing license purchasers).

Protecting/improving populations of hunted species. As indicated in Figures 12a and 12b and Table 11, DWR was generally rated as moderately effective in protecting and improving populations of wildlife that people do hunt for. The mean response value for the combined statewide general public sample was 6.16, with only 5.4% of responses in the "very ineffective" (0-2) range and 26.9% in the "very effective" (8-10) range. Metropolitan-area residents were slightly more positive in their overall ratings (mean = 6.20) than were residents of nonmetropolitan areas of the state (mean = 6.01).

License purchasers as a group also rated DWR as moderately effective in protecting populations of hunted species. For the combined license purchaser sample, the mean response value was 6.02, with 8.0% of the ratings in the "very ineffective" range and 27.9% in the "very effective" range. Metropolitan-area and nonmetropolitan hunting license buyers exhibited lower overall ratings (means of 5.84 and 5.58, respectively) than did either metro area (mean = 6.37) or nonmetro (mean = 6.28) fishing license purchasers.

Trade-Offs Between Wildlife and Other Activities

A series of seven survey items asked respondents to address trade-offs between wildlife protection and several other types of land and resource uses. Each of these items was presented as a statement, with respondents asked to indicate their level of agreement on a scale ranging between 0 ("disagree very strongly") and 10 ("agree very strongly"). Several of these items were derived from the earlier survey conducted in 1986, providing grounds for evaluating changes in

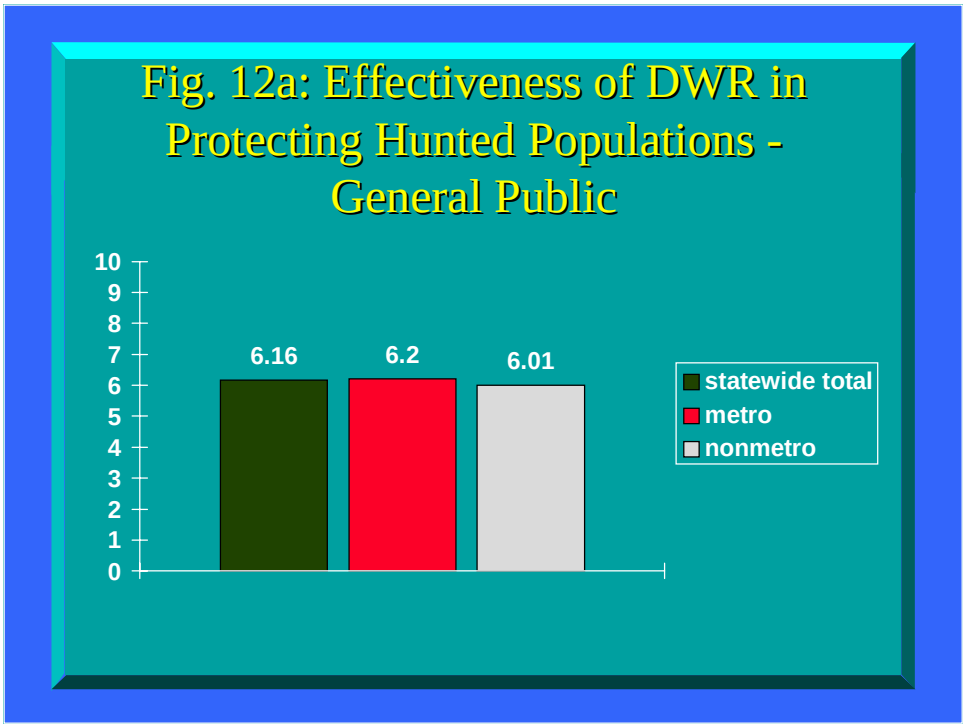


Fig. 12a: Effectiveness of DWR in Protecting Hunted Populations - General Public
10
9
8
7
6
5
4
3
2
1
0
6.16
6.2
6.01
statewide total
metro
nonmetro

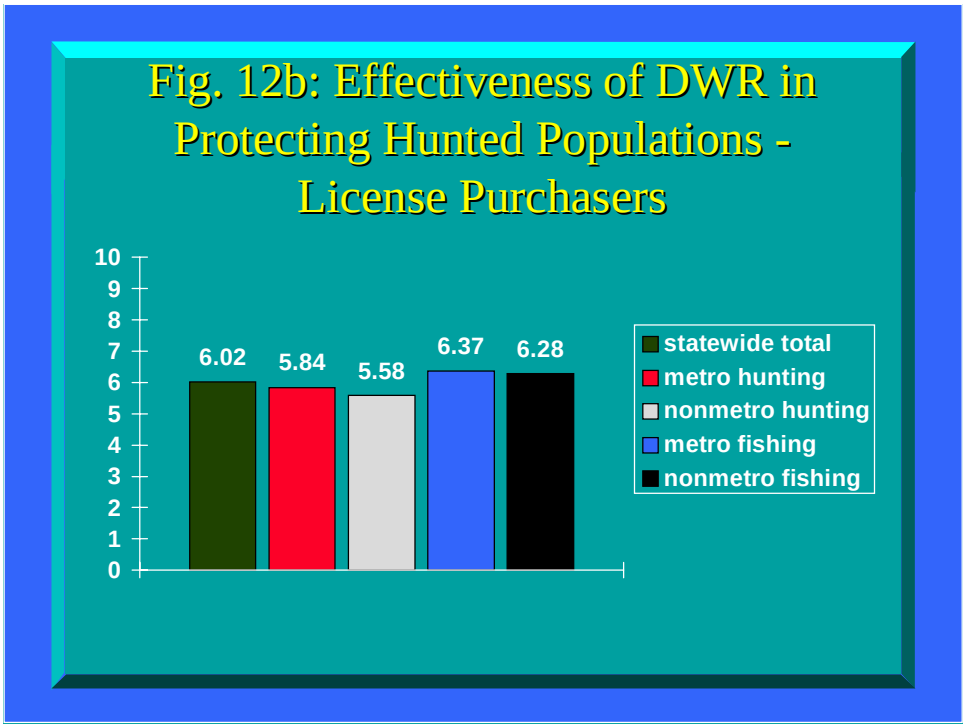


Fig. 12b: Effectiveness of DWR in Protecting Hunted Populations - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.02
5.84
5.58
6.37
6.28
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 11. Response distributions to question measuring attitudes about DWR effectiveness in protecting hunted populations, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (not at all effective)	2.1	3.2	2.3	1.5	4.8	1.8	5.6	2.8
1	0.5	1.6	0.8	1.5	3.2	0.0	1.9	1.4
2	2.1	3.2	2.3	4.5	3.2	3.5	3.7	3.8
3	5.2	9.0	6.1	4.5	8.1	3.5	0.0	4.4
4	6.8	9.0	7.3	11.9	11.3	10.5	5.6	10.6
5	17.7	12.2	16.5	20.9	17.7	15.8	22.2	18.7
6	14.1	10.6	13.3	11.9	9.7	7.0	5.6	9.0
7	25.5	21.3	24.6	23.9	14.5	24.6	18.5	21.5
8	16.7	19.1	17.2	10.4	21.0	19.3	20.4	16.8
9	6.3	3.7	5.7	4.5	1.6	10.5	7.4	6.3
10 (extremely effective)	3.1	6.9	4.0	4.5	4.8	3.5	9.3	4.8
Number of cases	192	188	833*	67	62	57	54	461*
Mean response	6.20	6.01	6.16	5.84	5.58	6.37	6.28	6.02
Median response	7.00	7.00	7.00	6.00	6.00	7.00	7.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

public attitudes over the past decade.

Access restrictions on public lands. The first in the series of trade-off items asked respondents to consider whether access to some public lands should be restricted during certain periods in order to protect wildlife populations using those areas. Responses to this item are summarized in Figures 13a and 13b and Table 12.

For the general public sample, overall response patterns indicated a high level of agreement with such access restrictions: the weighted mean for the combined statewide sample was 7.19, with a substantially higher tendency to express strong agreement (57.5% of responses in the 8-10 range) than strong disagreement (8.8% in the 0-2 range). Levels of agreement in public land access restrictions were somewhat higher among the metropolitan-area general public (mean = 7.29) than among residents of nonmetropolitan areas of the state (6.83), consistent with broader patterns of metro/non-metro differences in orientations toward a variety of public land management issues.

License purchasers as a group also expressed relatively high agreement with the concept of public land access restrictions to protect wildlife (mean = 6.99; 55.4% in 8-10 range). Metropolitan hunting license purchasers responded more favorably (mean = 7.15) than did non-metro hunting license buyers (mean 6.42); a similar difference characterized the responses of metropolitan (mean = 7.35) and nonmetropolitan (mean = 6.52) fishing license purchasers. However, in all of the license purchaser categories the most frequent response value was 10 (selected by one-fourth to one-third of respondents), indicating very strong agreement with access restrictions when needed to protect wildlife populations.

Public lands grazing. The second trade-off item asked respondents to indicate their level of agreement with a statement indicating that “the use of public lands in Utah for livestock grazing

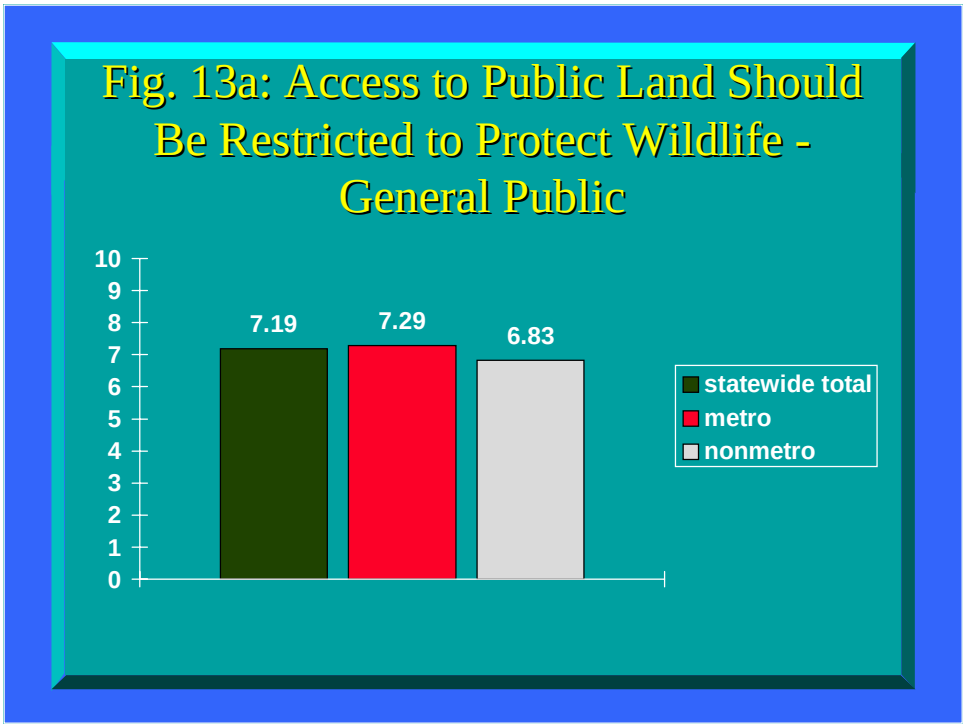


Fig. 13a: Access to Public Land Should Be Restricted to Protect Wildlife - General Public
10
9
8
7
6
5
4
3
2
1
0
7.19
7.29
6.83
statewide total
metro
nonmetro

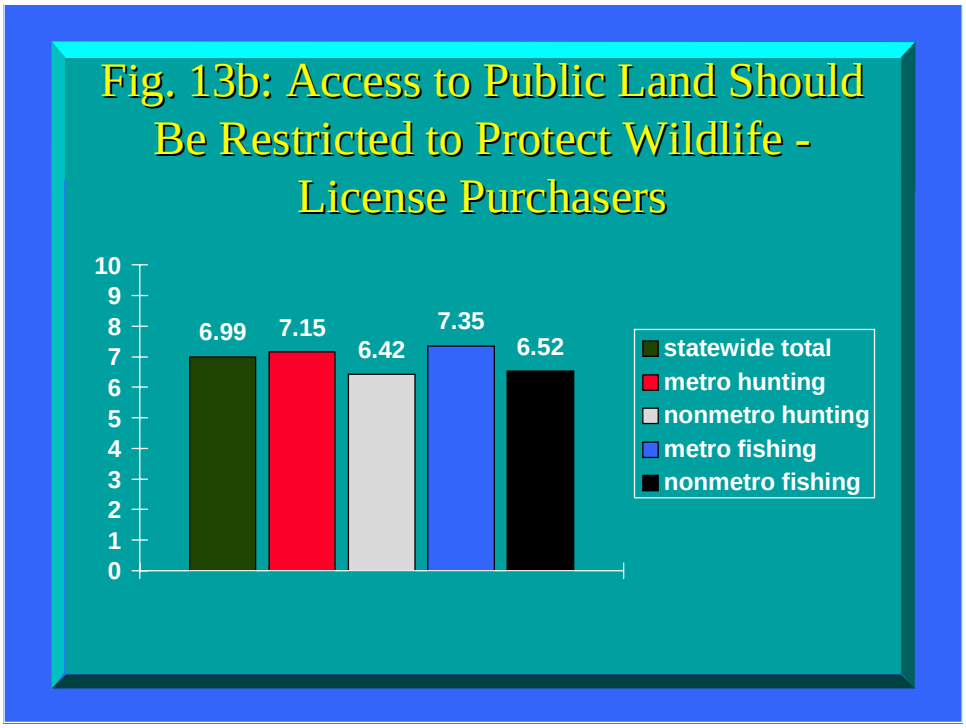


Fig. 13b: Access to Public Land Should Be Restricted to Protect Wildlife - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.99
7.15
6.42
7.35
6.52
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 12. Response distributions to question measuring attitudes about agreement toward restricting access to public lands, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	5.8	7.0	6.1	4.8	12.4	5.8	8.2	7.2
1	1.1	2.3	1.4	0.8	3.3	0.8	1.6	1.4
2	1.1	2.1	1.3	0.8	1.7	0.8	4.1	1.4
3	3.1	3.5	3.2	4.8	2.5	5.0	5.7	4.5
4	3.8	3.0	3.6	1.6	4.1	3.3	4.9	3.2
5	7.8	12.8	9.0	14.4	11.6	5.8	12.3	10.5
6	6.1	6.3	6.1	4.8	1.7	5.8	5.7	4.7
7	11.7	11.9	11.7	12.0	13.2	10.8	10.7	11.7
8	20.6	17.0	19.8	21.6	19.8	24.2	13.9	21.1
9	8.7	7.7	8.5	9.6	5.0	4.2	4.9	6.1
10 (agree very strongly)	30.0	26.3	29.2	24.8	24.8	33.3	27.9	28.2
Number of cases	446	429	1928*	125	121	120	122	926*
Mean response	7.29	6.83	7.19	7.15	6.42	7.35	6.52	6.99
Median response	8.00	8.00	8.00	8.00	7.00	8.00	7.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

should continue at present levels so long as grazing use does not threaten wildlife or fish populations." Response patterns corresponding to this item are summarized in Figures 14a and 14b and Table 13.

Among the general public, overall statewide response tendencies indicated high levels of agreement with this statement. For the state as a whole, the mean response value was 7.26, with only 8.3% of responses in the "strongly disagree" (0-2) range and 59.6% in the "strongly agree" (8-10) range. High support for maintaining public land grazing use so long as wildlife are not threatened was evident among both the metropolitan (mean = 7.21) and nonmetropolitan (mean = 7.40) general public samples. Similarly, high agreement levels were evident among license purchasers as a group (mean = 7.30; 70% of responses in the 8-10 range); mean response values ranged from a low of 6.90 among metropolitan-area hunting license buyers to 7.94 among nonmetropolitan fishing license purchasers.

Energy resource developments. As indicated in Figures 15a and 15b and Table 14, respondents were generally supportive of the idea that development of oil, natural gas, or coal deposits in Utah should be limited in areas where those activities would cause reduced wildlife or fish populations. For the aggregated statewide general population sample, the mean response value was 7.12, with nearly one-third of responses falling in the category indicating the strongest possible agreement that such activities should be limited. Metropolitan-area residents were somewhat more likely to agree with the concept of development limits (mean = 7.19) than were those from nonmetropolitan areas of the state (mean = 6.90), though even among the latter group over 50% of responses were in the strong agreement (8-10) range, while only about 8% indicated strong disagreement (0-2).

Agreement with limitations on energy resource developments that would reduce wildlife

Fig. 14a: Use of Public Lands for Livestock Grazing Should Continue at Present Levels - General Public

Fig. 14b: Use of Public Lands for Livestock Grazing Should Continue at Present Levels - License Purchasers

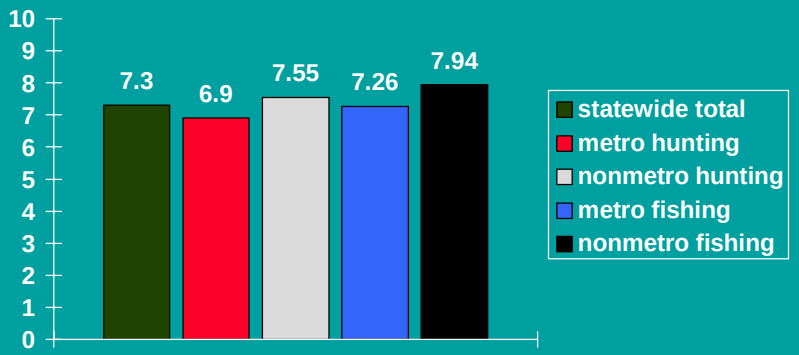


Table 13. Response distributions to question measuring attitudes about agreement toward allowing present grazing levels, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	5.3	6.0	5.4	6.3	7.3	4.2	3.2	5.4
1	0.7	1.4	0.8	3.1	0.0	1.7	0.0	1.6
2	2.3	1.4	2.1	3.1	0.8	4.2	3.2	3.1
3	3.7	2.1	3.3	3.9	5.6	1.7	2.4	3.3
4	2.7	3.2	2.9	3.1	2.4	2.5	4.0	2.9
5	12.1	9.3	11.5	10.2	8.1	8.5	6.5	8.7
6	4.8	5.6	5.0	9.4	1.6	5.9	2.4	5.7
7	9.8	7.9	9.4	7.9	4.8	11.9	6.5	8.4
8	19.9	20.2	19.9	15.0	19.4	21.2	18.5	18.5
9	10.7	9.3	10.4	4.7	12.1	11.0	8.9	9.0
10 (agree very strongly)	28.1	33.6	29.3	33.1	37.9	27.1	44.4	33.5
Number of cases	438	431	1903*	127	124	118	124	932*
Mean response	7.21	7.40	7.26	6.90	7.55	7.26	7.94	7.30
Median response	8.00	8.00	8.00	8.00	8.50	8.00	9.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

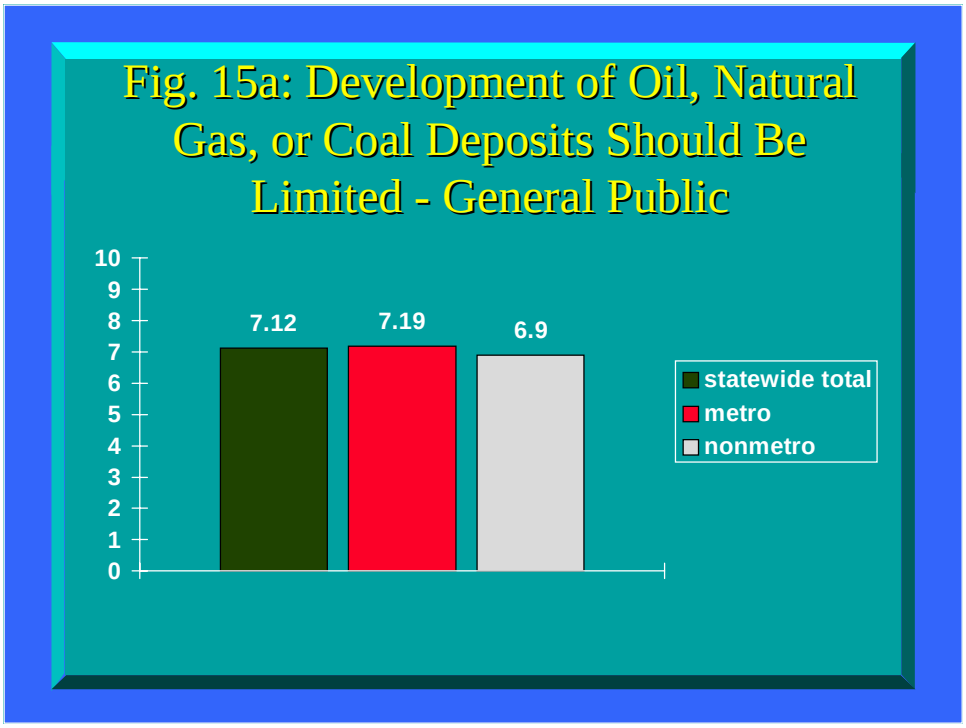


Fig. 15a: Development of Oil, Natural Gas, or Coal Deposits Should Be Limited - General Public
10
9
8
7
6
5
4
3
2
1
0
7.12
7.19
6.9
statewide total
metro
nonmetro

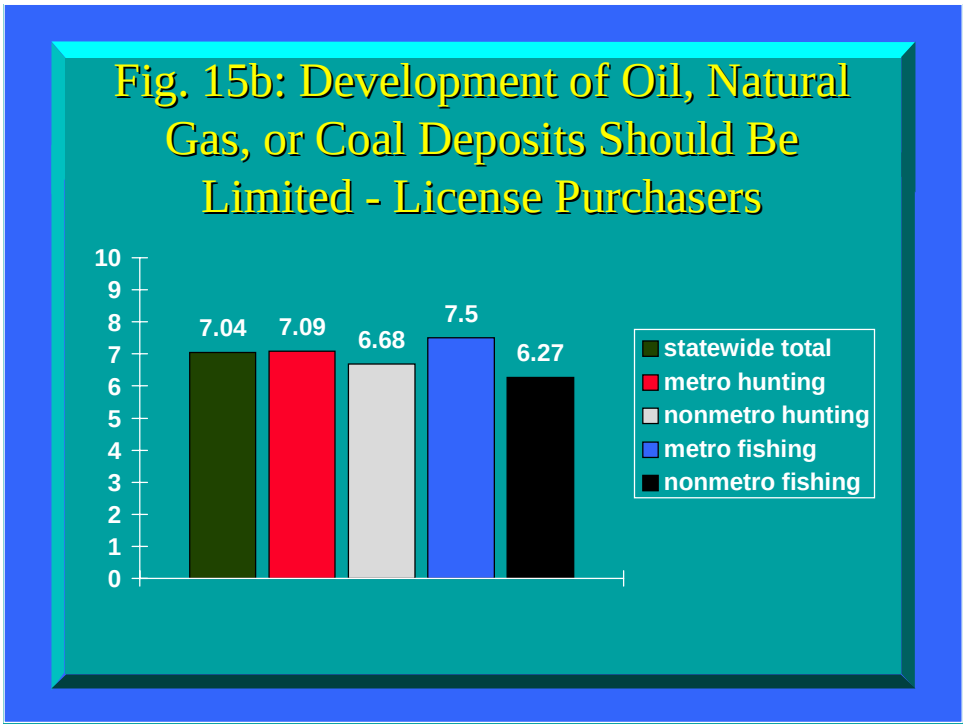


Fig. 15b: Development of Oil, Natural Gas, or Coal Deposits Should Be Limited - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.04
7.09
6.68
7.5
6.27
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 14. Response distributions to question measuring attitudes about agreement toward limiting oil, coal, & gas development, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	3.8	4.6	4.0	9.5	8.3	3.4	14.3	7.8
1	1.4	0.9	1.3	0.8	0.8	0.0	0.8	0.5
2	1.4	2.8	1.7	0.0	5.0	0.0	4.2	1.6
3	4.3	5.3	4.5	4.0	3.3	2.6	2.5	3.2
4	2.9	4.4	3.3	1.6	2.5	2.6	3.4	2.3
5	16.5	17.6	16.7	14.3	15.7	14.7	15.1	14.8
6	7.2	5.8	6.9	4.0	6.6	12.1	6.7	7.7
7	8.4	7.9	8.2	8.7	5.8	6.9	5.9	7.1
8	14.7	14.4	14.6	13.5	18.2	17.2	11.8	15.5
9	6.8	5.6	6.5	11.1	5.8	5.2	7.6	7.5
10 (agree very strongly)	32.7	30.6	32.3	32.5	28.1	35.3	27.7	32.0
Number of cases	443	431	1919*	126	121	116	119	915*
Mean response	7.19	6.90	7.12	7.09	6.68	7.50	6.27	7.04
Median response	8.00	8.00	8.00	8.00	8.00	8.00	7.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

or fish populations was similarly high among hunting and fishing license purchasers as a group (mean = 7.04). As with other resource-development issues, lower levels of agreement with energy development limitations were evident among nonmetropolitan hunting (mean = 6.68) and fishing (mean = 6.27) license buyers than among their metropolitan-area hunting (7.09) and fishing (7.50) license buying counterparts.

An identical item included in the 1986 survey produced mean response values of 6.4 among the statewide general public respondents and 6.1 among license purchasers. Thus, the distribution of responses to this item for the 1998 survey suggests that, overall, there has been an increase in levels of support for limiting resource developments to protect wildlife over the past decade.

Housing development. The fourth item in the trade-off series asked respondents to indicate their level of agreement with the idea that areas providing important wildlife habitat should be protected, even if that would mean some new housing projects could not be built. Responses to this item are summarized in Figures 16a and 16b and Table 15.

Overall, there was very substantial agreement that wildlife habitat protection should be prioritized over housing development. Among the general public, the combined statewide data resulted in a mean response value of 7.80; two-thirds of responses were in the "strong agreement" (8-10) range, with over 44% in the category indicating the highest level of agreement. Metropolitan-area residents exhibited slightly higher overall agreement with such a priority (mean = 7.89) than did residents of nonmetropolitan areas of Utah (mean = 7.49), although clearly there is strong support for prioritizing wildlife over housing development in both of these population segments.

Even higher levels of agreement were expressed by license purchasers as a group; the

Fig. 16a: Areas that Provide Important Wildlife Habitat Should Be Protected - General Public

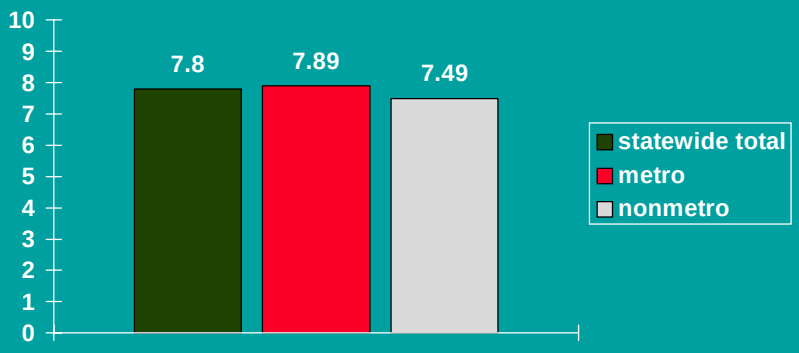


Fig. 16b: Areas that Provide Important Wildlife Habitat Should Be Protected - License Purchasers

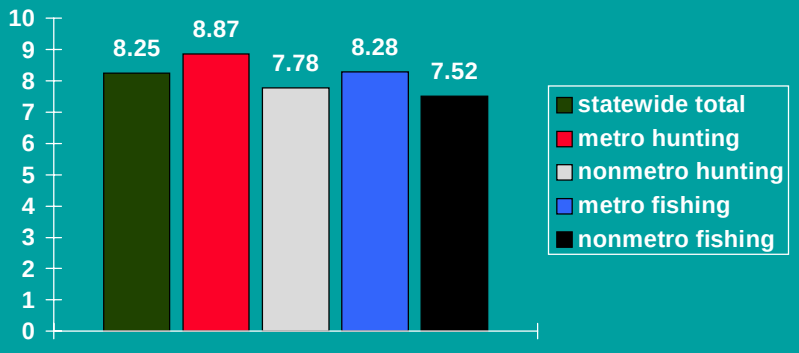


Table 15. Response distributions to question measuring attitudes about agreement toward protecting important wildlife habitat, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	3.3	4.9	3.7	0.8	4.8	0.8	7.1	2.5
1	0.9	0.2	0.7	0.0	2.4	0.0	0.0	0.5
2	2.2	2.1	2.2	0.0	2.4	1.7	3.2	1.5
3	2.2	3.7	2.5	0.0	2.4	2.5	2.4	1.7
4	2.7	4.6	3.1	0.8	0.8	1.7	0.8	1.1
5	8.6	10.0	8.9	4.8	6.5	7.5	7.9	6.5
6	4.4	6.3	4.8	3.2	6.5	3.3	7.9	4.6
7	8.0	8.1	8.0	10.4	2.4	6.7	11.1	7.5
8	13.5	11.8	13.1	12.0	17.7	21.7	8.7	16.2
9	8.6	7.2	8.3	8.0	9.7	9.2	7.9	8.7
10 (agree very strongly)	45.6	41.2	44.6	60.0	44.4	45.0	42.9	49.2
Number of cases	452	432	1951*	125	124	120	126	935*
Mean response	7.89	7.49	7.80	8.87	7.78	8.28	7.52	8.25
Median response	9.00	8.00	9.00	10.00	9.00	9.00	9.00	9.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

mean response for the combined statewide sample was 8.25, with nearly three-fourths of responses in the strong agreement range. Mean response values ranged from a low of 7.52 among nonmetropolitan fishing license purchasers to a high of 8.87 among metropolitan hunting license purchasers, clearly indicating broad-based support for this trade-off among each of these license-buying categories.

Responses to this same item from the 1986 survey produced mean response values of 7.5 among the statewide general public and 7.7 among license purchasers. Thus, in the approximately 10 years since the first survey it appears that Utahns have become somewhat more supportive of the idea that housing developments should be restricted if they threaten wildlife and wildlife habitat.

Road/highway construction. Figures 17a and 17b and Table 16 summarize responses to an item asking survey participants to indicate their level of agreement with a statement suggesting that proposed new highways and roads in Utah should not be constructed in areas where they are likely to cause significant losses of wildlife and wildlife habitat. Once again, response patterns indicate very high levels of agreement that wildlife should be prioritized over road construction. For the combined statewide general public sample the mean response was 7.41, with over 60% of responses in the "strong agreement" range. Metropolitan-area residents were somewhat more likely to agree with this priority (mean = 7.55) than were residents of nonmetropolitan portions of the state (mean = 6.92). High levels of agreement were also evident among license purchasers as a group (mean = 7.79), with the highest average level of agreement evident among metropolitan hunting license buyers (mean = 8.10) and slightly lower agreement among nonmetropolitan hunting license buyers (7.61) as well as both metro (7.83) and nonmetro (7.19) fishing license buyers.

Fig. 17a: Highways Should Not Be Constructed Where They Would Cause Losses of Wildlife - General Public

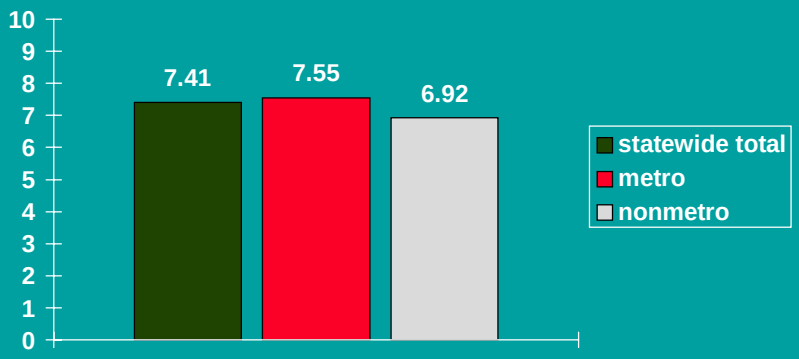


Fig. 17b: Highways Should Not Be Constructed Where They Would Cause Losses of Wildlife - License Purchasers

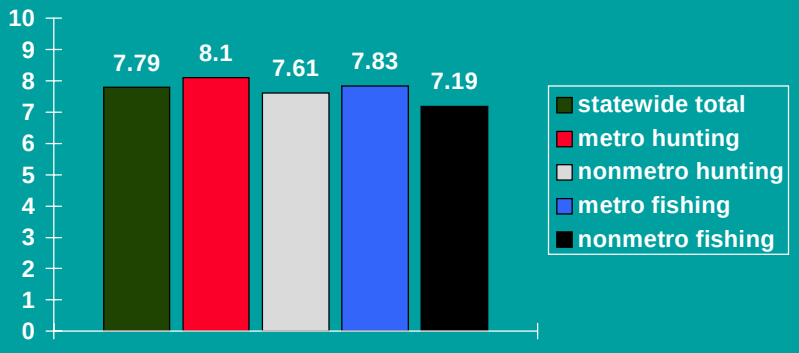


Table 16. Response distributions to question measuring attitudes about agreement toward limiting the construction of new roads, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	3.8	6.5	4.4	3.2	4.9	1.7	8.1	3.6
1	2.0	0.5	1.7	3.2	0.8	0.8	0.0	1.4
2	1.8	3.7	2.2	0.0	0.0	3.3	3.2	1.6
3	3.1	5.1	3.5	2.4	1.6	0.8	3.2	1.8
4	2.7	3.2	2.8	2.4	4.1	1.7	3.2	2.6
5	10.4	13.4	11.1	4.8	13.8	12.5	11.3	10.2
6	4.2	7.4	4.9	4.0	3.3	3.3	4.8	3.7
7	9.1	8.1	8.9	5.6	4.9	10.0	8.9	7.4
8	15.3	13.6	15.0	16.8	19.5	15.8	10.5	16.2
9	10.4	6.7	9.6	7.2	11.4	12.5	8.9	10.2
10 (agree very strongly)	37.1	31.9	35.9	50.4	35.8	37.5	37.9	41.2
Number of cases	450	433	1945*	125	123	120	124	931*
Mean response	7.55	6.92	7.41	8.10	7.61	7.83	7.19	7.79
Median response	8.00	8.00	8.00	10.00	8.00	8.50	8.00	9.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

A similar item included in the 1986 survey resulted in mean response values of 7.2 among the general public respondents and 7.0 among license purchasers. Comparison with the mean values obtained in 1998 suggest that Utahns have become slightly more supportive of restrictions on highway and road development if such projects are a threat to wildlife.

Use of off-road and all-terrain vehicles. Response patterns to an item pertaining to the idea that use of off-road vehicles and all-terrain vehicles should not be allowed where such activities would threaten wildlife or damage wildlife habitat are summarized in Figures 18a and 18b and Table 17. For the state as a whole, results from the general public sample indicate a high level of support for such restrictions - - the mean response value on the 0-10 scale was 7.80, with two-thirds of responses falling in the 8-10 range. Utahns living in the Wasatch Front metropolitan area were slightly more likely to agree with such restrictions (mean = 7.88) than were residents of nonmetropolitan areas of the state (mean = 7.53).

Similar response patterns were obtained for the combined license purchasers sample. For the statewide combined sample the mean response value was 7.50; approximately 60% of responses were in the 8-10 range. Metropolitan hunting license purchasers were substantially more supportive of restrictions on off-road vehicles and ATVs (mean = 7.61) than were their nonmetropolitan counterparts (mean = 6.64); a similar difference characterized the average responses of metropolitan (mean = 8.05) and nonmetropolitan (mean = 7.06) fishing license purchasers. Across all four of the license purchaser groups the maximum percentage of respondents indicating substantial disagreement (responses in the 0-2 range) was 11%.

Use of personal watercraft. The final item in the trade-off series asked respondents to indicate their level of agreement with the suggestion that personal watercraft or “jet skis” should not be allowed on lakes or reservoirs that are high-use fishing areas. As indicated in Figures 19a

Fig. 18a: Use of Off-Road Vehicles Should Not Be Allowed Where Likely to Threaten Wildlife - General Public

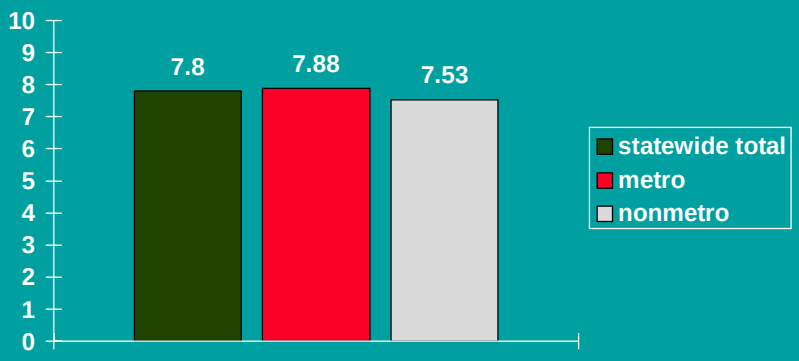


Fig. 18b: Use of Off-Road Vehicles Should Not Be Allowed Where Likely to Threaten Wildlife - License Purchasers

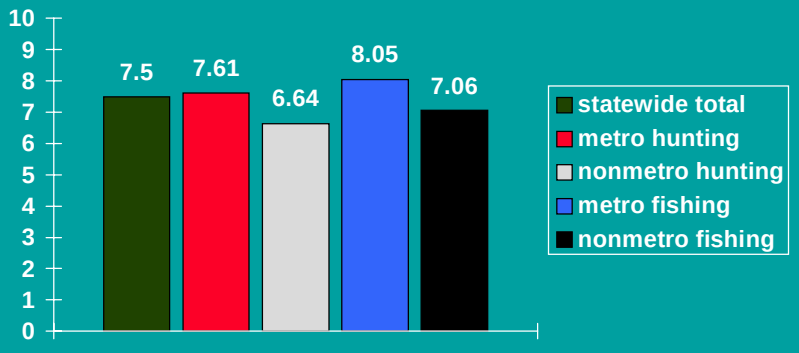


Table 17. Response distributions to question measuring attitudes about agreement toward limiting the use of off-road vehicles, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	4.0	4.1	4.0	3.2	5.0	0.8	8.7	3.5
1	0.7	0.5	0.6	1.6	0.8	1.7	0.0	1.2
2	1.1	2.9	1.5	3.2	3.3	2.5	2.4	2.9
3	2.7	2.7	2.7	1.6	8.3	2.5	0.8	3.1
4	2.0	4.5	2.6	1.6	4.2	1.7	4.8	2.6
5	6.4	10.9	7.4	9.5	16.7	9.1	13.5	11.3
6	5.8	3.9	5.3	8.7	4.2	2.5	8.7	5.6
7	10.0	9.8	9.9	12.7	6.7	9.9	6.3	9.6
8	15.5	12.0	14.7	7.9	20.8	15.7	11.9	13.8
9	10.2	9.5	10.0	10.3	6.7	8.3	7.9	8.5
10 (agree very strongly)	41.7	39.2	41.1	39.7	23.3	45.5	34.9	37.8
Number of cases	451	441	1956*	126	120	121	126	934*
Mean response	7.88	7.53	7.80	7.61	6.64	8.05	7.06	7.50
Median response	9.00	8.00	9.00	8.50	8.00	9.00	8.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

and 19b and Table 18, there was moderate overall support for this type of restriction. For the aggregated general public sample the mean response value was 6.73, with slightly over 10% of responses indicating strong disagreement (0-2 response values), while about 46% indicated strong agreement (8-10 response values). Overall, the response tendencies of metropolitan residents (mean = 6.72) and nonmetropolitan residents (mean = 6.76) were virtually identical.

License purchasers as a group exhibited similar overall levels of agreement with restrictions on personal watercraft. For the combined statewide sample, the mean response value was 6.82. Nonmetropolitan hunting license purchasers were somewhat less likely to agree with such restrictions (mean = 5.98) than those living in metropolitan areas of the state (mean = 6.85). Similarly, metropolitan fishing license purchasers were slightly more likely to agree (mean = 7.21) than were those from the nonmetropolitan areas of the state (mean = 6.96).

Funding for Utah Wildlife Management

Several survey questions focused on various aspects of funding and funding sources used for wildlife management efforts in Utah. The first of these items asked respondents to indicate which of five sources they believed represents the source of the largest proportion of funding spent by the state on wildlife and fish management efforts. As illustrated in Figures 20a and 20b and Table 19, the data indicate that slightly over one-half (51.3%) of Utahns are aware that hunting and fishing license fees comprise the primary source of funds for wildlife management in Utah; this number is slightly lower than the proportion (58.9%) of general public respondents who answered this same question correctly in 1986. A substantial proportion of the state's population is apparently unaware or misinformed about the sources of funding for wildlife management activities. In particular, there was a notable tendency for some respondents to indicate that they

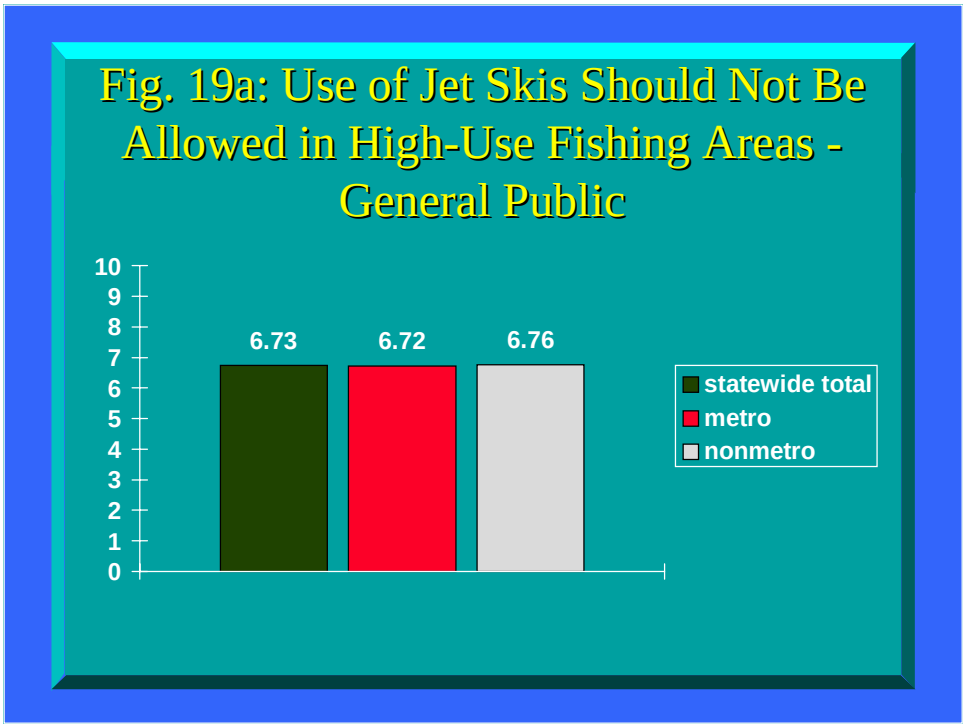


Fig. 19a: Use of Jet Skis Should Not Be Allowed in High-Use Fishing Areas - General Public
10
9
8
7
6
5
4
3
2
1
0
6.73
6.72
6.76
statewide total
metro
nonmetro

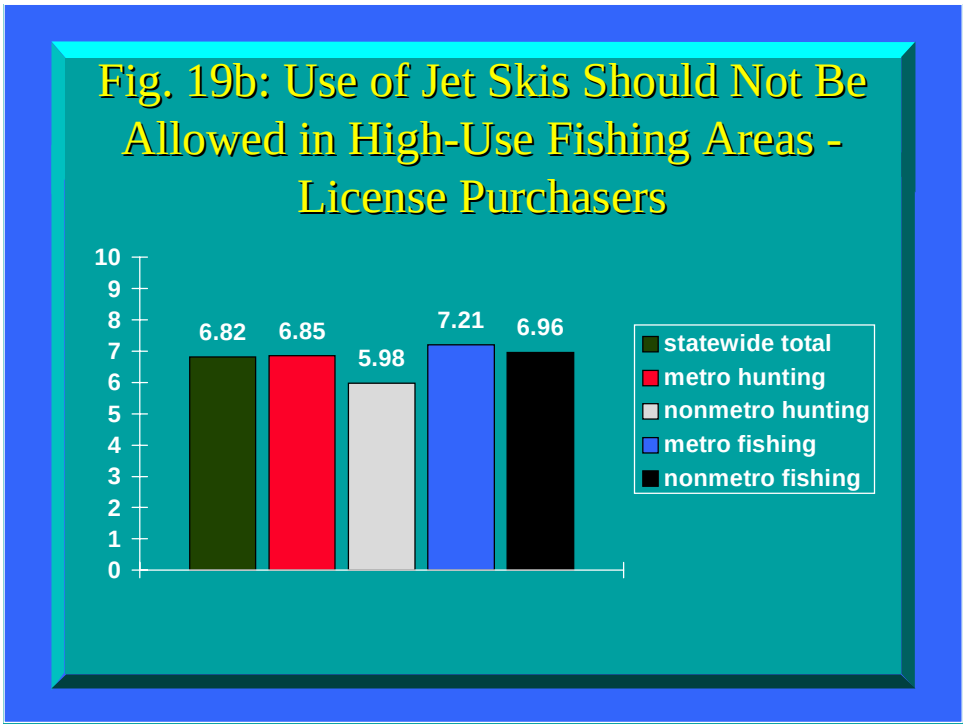


Fig. 19b: Use of Jet Skis Should Not Be Allowed in High-Use Fishing Areas - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.82
6.85
5.98
7.21
6.96
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 18. Response distributions to question measuring attitudes about agreement toward limiting the use of jet skis, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (disagree very strongly)	5.8	5.9	5.8	4.0	11.0	6.0	8.1	6.7
1	2.1	0.9	1.8	1.6	4.2	0.0	1.6	1.6
2	2.5	3.7	2.8	4.0	3.4	0.9	4.1	2.8
3	1.8	4.4	2.4	4.0	5.9	2.6	3.3	3.8
4	5.3	4.0	5.0	6.4	4.2	7.7	2.4	5.9
5	18.4	16.9	18.1	16.0	22.0	15.4	12.2	16.5
6	8.5	7.7	8.3	5.6	5.1	4.3	6.5	5.2
7	9.9	8.4	9.6	11.2	4.2	9.4	8.9	8.9
8	12.7	13.3	12.8	9.6	7.6	10.3	9.8	9.5
9	5.8	4.9	5.6	7.2	0.8	6.0	4.9	5.2
10 (agree very strongly)	27.2	29.7	27.8	30.4	31.4	37.6	38.2	34.2
Number of cases	434	427	1885*	125	118	117	123	914*
Mean response	6.72	6.76	6.73	6.85	5.98	7.21	6.96	6.82
Median response	7.00	7.00	7.00	7.00	5.00	8.00	8.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

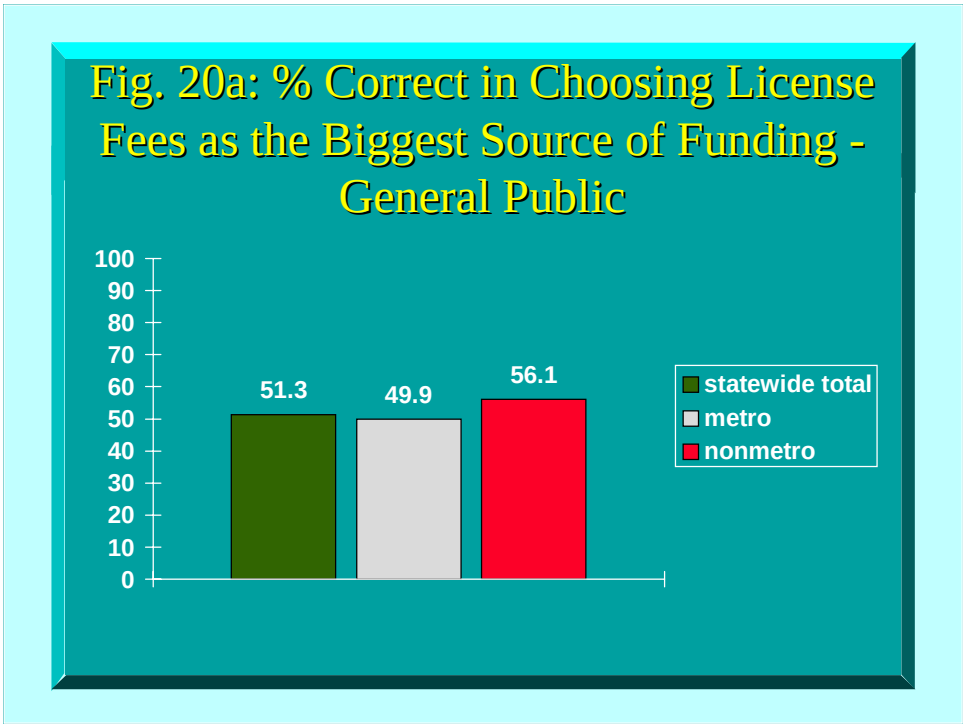


Fig. 20a: % Correct in Choosing License Fees as the Biggest Source of Funding - General Public
100
90
80
70
60
50
40
30
20
10
0
51.3
49.9
56.1
statewide total
metro
nonmetro

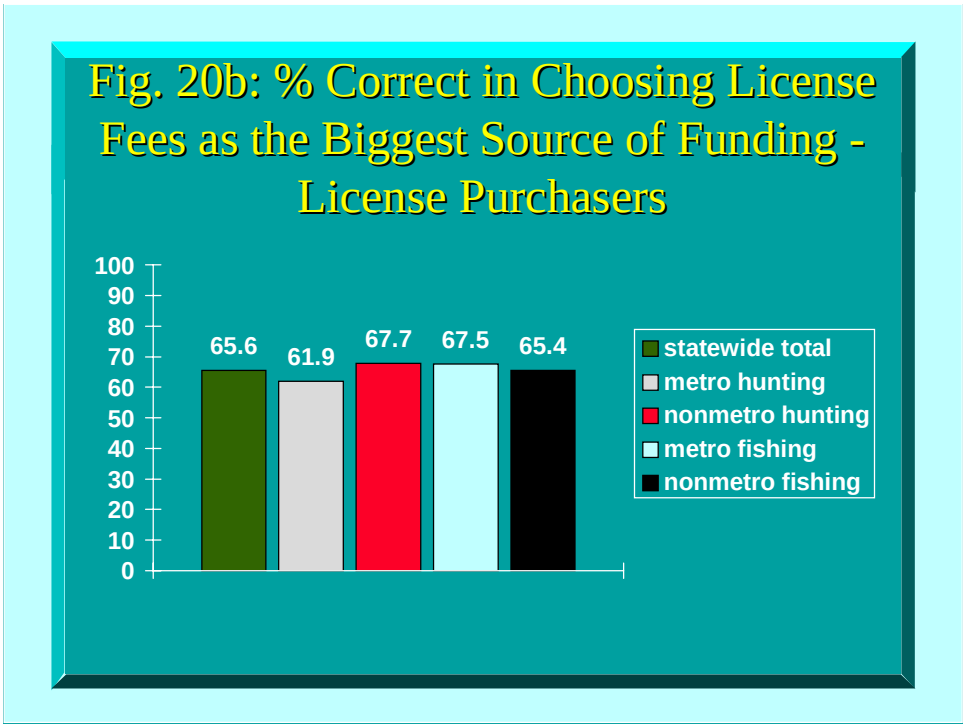


Fig. 20b: % Correct in Choosing License Fees as the Biggest Source of Funding - License Purchasers
100
90
80
70
60
50
40
30
20
10
0
65.6
61.9
67.7
67.5
65.4
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 19. Response distributions to question asking what survey participants believe to be the primary source of funds for wildlife management in Utah, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
Funds from federal govt.	16.3	13.2	15.6	4.8	7.3	14.2	9.4	9.2
Hunting/fishing license fees	49.9	56.1	51.3	61.9	67.7	67.5	65.4	65.6
Income/sales taxes paid by Utahns	15.2	13.3	14.7	13.5	11.3	9.2	9.4	11.0
Money from voluntary organizations and interest groups	9.6	6.6	8.9	4.8	4.8	3.3	8.7	4.8
Voluntary contributions from state income tax refunds	2.0	1.4	2.0	3.2	2.4	2.5	1.6	2.6
Don't Know	6.9	9.4	7.5	11.9	6.4	3.3	5.5	6.9
Number of cases	447	437	1939*	126	124	120	127	938*

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

believed funds provided by the federal government, funds derived from state income and sales taxes, or voluntary contributions from state income tax refunds were the primary sources of DWR funding. Metropolitan and nonmetropolitan residents exhibited generally similar perceptions about the primary sources of funding for state wildlife management. Hunting and fishing license purchasers were substantially more likely than members of the public at large to correctly indicate that hunting and fishing license fees are the primary source of DWR funding, with two-thirds (65.6%) of the aggregated license purchaser sample indicating that response option; a similar proportion (66.3%) of license purchasers answered correctly in 1986. Little variation in perceptions about funding sources was evident across the four individual license purchaser groups.

Respondents were also asked to indicate which of four groups they believed should be most responsible for providing the funding needed to maintain and improve populations of the fish and wildlife species that Utahns hunt and fish for (Figure 21a, Table 20). For the statewide general public, about 46% identified "everyone who has a special interest in wildlife, including hunters and anglers as well as people with other types of wildlife interests" as the group that should assume primary funding responsibility. About one-third of responses identified "all Utahns" as the group that should be responsible for providing funding. Interestingly, only about 16% of respondents indicated that only those who purchase hunting and fishing licenses should be responsible for providing the funding used to manage game species of fish and wildlife. Responses for the metropolitan and nonmetropolitan segments of the sample were virtually identical. As a group, license purchasers were generally less likely than the public at large to identify those who buy hunting and fishing licenses as the group that should assume primary funding responsibility, although nonmetropolitan fishing license purchasers were distinct from the

Fig. 21a: Which Groups Should Be Most Responsible for Funding Game Populations

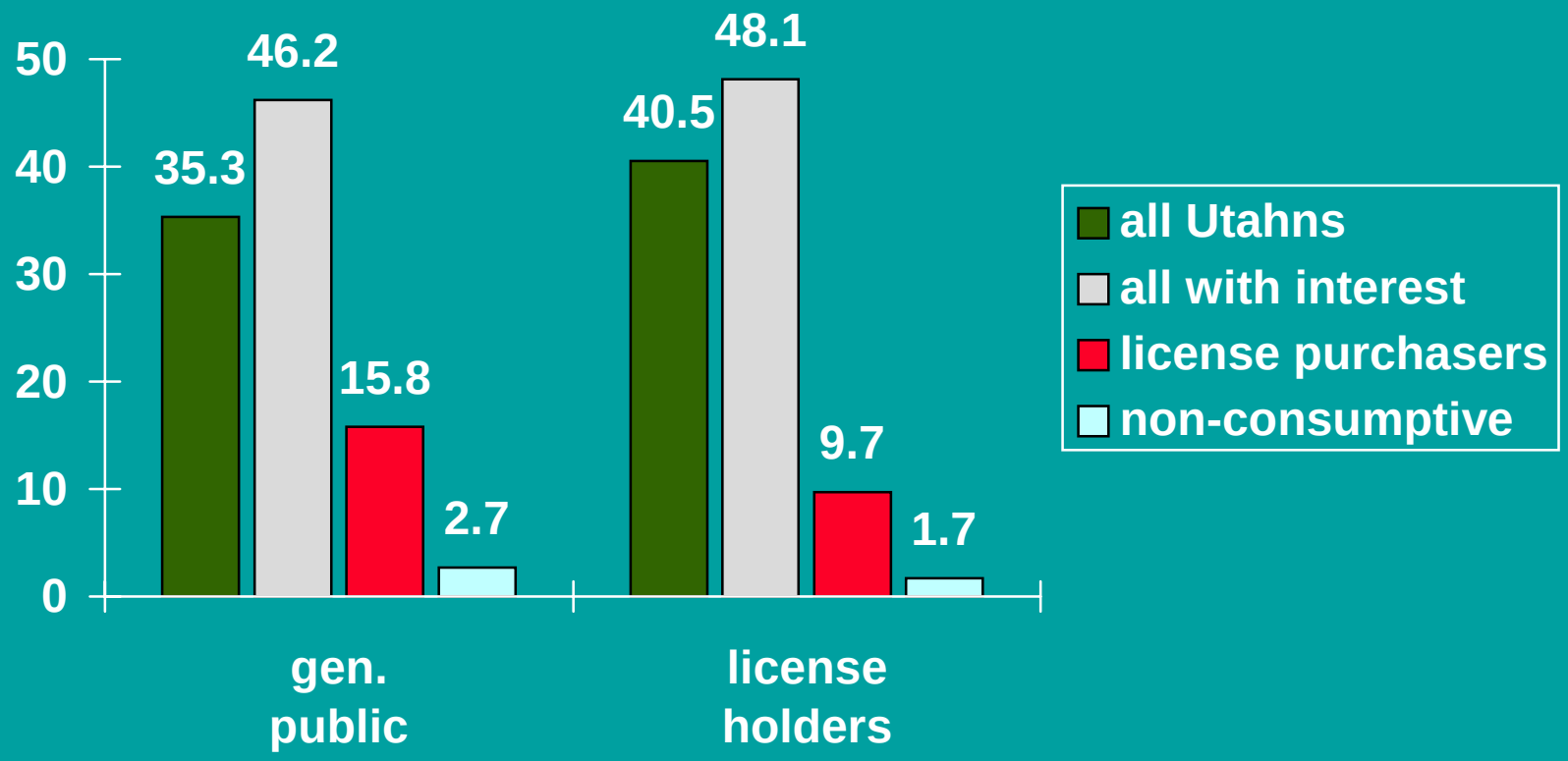


Table 20. Response distributions to question asking survey participants which groups they believe should be most responsible for providing the funds needed to maintain & improve populations of fish & wildlife in Utah that people hunt & fish for, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
All Utahns	34.7	37.1	35.3	46.3	37.4	41.9	28.2	40.5
Everyone with a special interest in wildlife	46.3	45.8	46.2	46.3	53.7	46.2	48.4	48.1
Only hunting & fishing license buyers	16.2	14.5	15.8	7.3	6.5	9.4	21.0	9.7
People with interests in wildlife other than hunting & fishing	2.7	2.6	2.7	0.0	2.4	2.6	2.4	1.7
Number of cases	438	428	1900*	123	123	117	124	919*

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

other categories in placing greater emphasis on the responsibility of license purchasers to fund game management programs.

A parallel question asked which groups should assume primary responsibility for providing funds needed to maintain and improve populations of fish and wildlife that Utahns **do not** hunt and fish for. As indicated in Figure 21b and Table 21, the most frequently-selected response option among the general public was "all Utahns" (48.8%), followed by "everyone with a special interest in wildlife" (31.8%). Relatively few respondents indicated that either those who buy hunting or fishing licenses or those who have specifically non-consumptive interests in wildlife should be targeted as the primary source of funding for managing non-game species. Metropolitan and nonmetropolitan residents expressed generally similar perspectives regarding this funding question, as did license purchasers as a group.

Opinions About Law Enforcement

A series of several questions addressed respondents' experiences with and opinions about the Division of Wildlife Resource's efforts to enforce laws pertaining to wildlife protection and other related issues.

Contacts with DWR law enforcement officers. The first item asked simply whether the respondent had had any contact with a DWR law enforcement officer in the five years prior to the survey period. For the general public across the state as a whole, fewer than one-fourth (23.1%) of Utahns have had at least some contact with a DWR law officer in the past five years. Contact with a DWR law officer was reported somewhat more frequently by nonmetropolitan residents (26.3%) than by residents of the metropolitan portion of the state (22.2%). Not surprisingly, license purchasers were substantially more likely to report such contact: over half (53.1%) of all

Fig. 21b: Which Groups Should Be Most Responsible for Funding Non-Game Populations

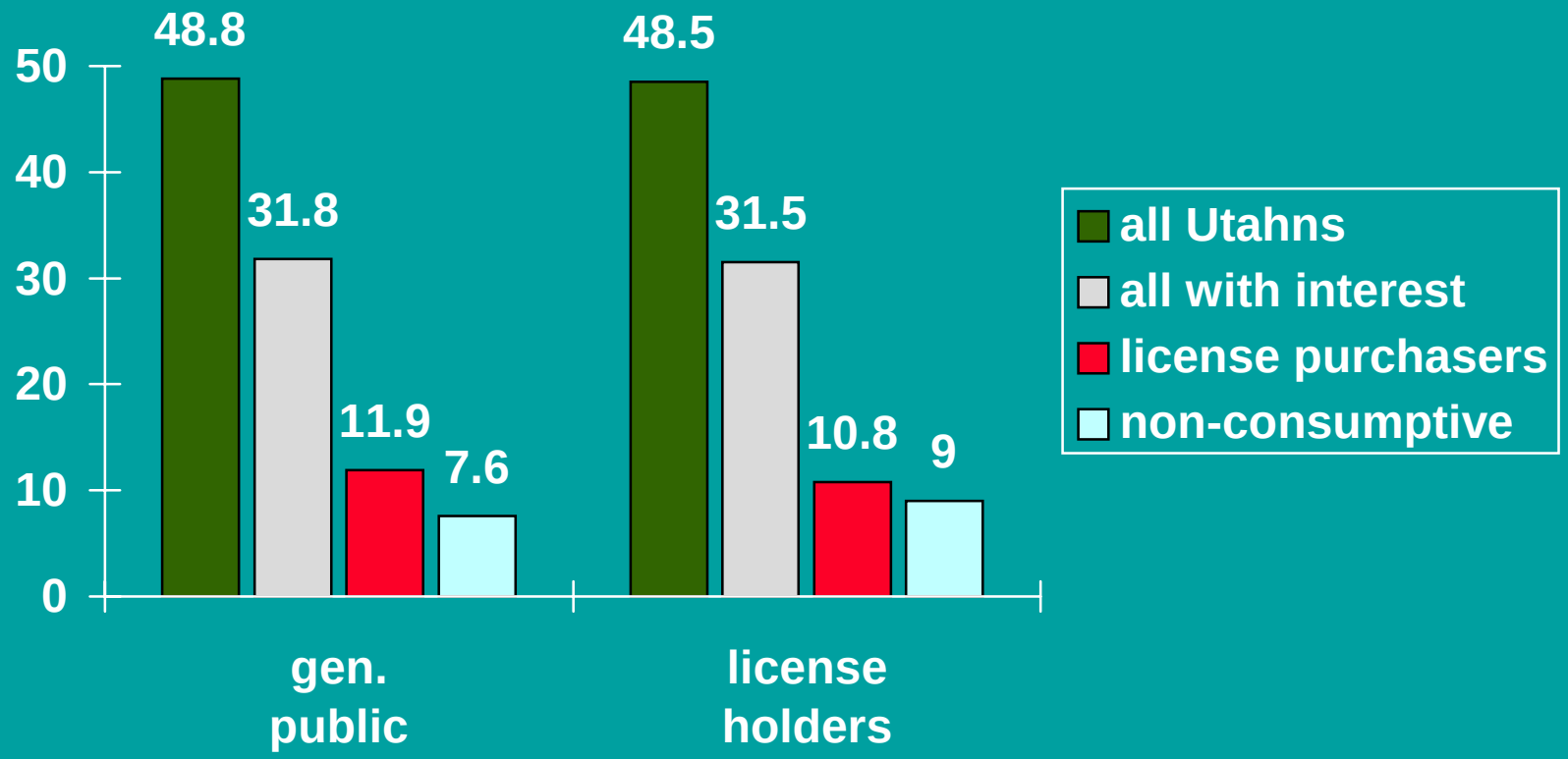


Table 21. Response distributions to question asking survey participants which groups they believe should be most responsible for providing the funds needed to maintain & improve populations of fish & wildlife in Utah that people do not hunt & fish for, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
All Utahns	48.6	49.3	48.8	54.8	39.7	51.8	39.7	48.7
Everyone with a special interest in wildlife	31.1	34.1	31.8	29.8	38.8	28.1	33.9	31.7
Only hunting & fishing license buyers	12.6	9.2	11.9	11.3	6.6	10.5	16.5	10.8
People with interests in wildlife other than hunting & fishing	7.7	7.3	7.6	4.0	14.9	9.6	9.9	9.0
Number of cases	428	422	1860*	124	121	114	121	906*

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

license purchasers report contact within the past five years, with both metropolitan (63.2%) and nonmetropolitan (64.0%) hunting license buyers being more likely to have such contact than either metro or nonmetro fishing license buyers (42% in both groups).

Those respondents who indicated contact with a DWR law officer were then asked to provide feedback regarding the professionalism and courteousness of the officer(s) they had interacted with, by rating their experience on a scale ranging from 0 ("very poor") to 10 ("very good". As indicated in Figure 22a and Table 22, both general public respondents and license purchaser respondents provided generally positive experience ratings -- the mean score for members of the general public sample (6.96) and the license purchaser sample (7.56) were both indicative of generally good experiences; for license purchasers, only about 7% of responses fell within the range of the response scale (0-2) indicating very poor experiences, and for general public, only 15% fell within that category.

Observation of wildlife law violations. Respondents were also to indicate whether they had witnessed what they believed to be a violation of hunting, fishing, or wildlife laws in Utah during 1997. Considering the state population as a whole, the data indicate that approximately one-fourth of adult Utahns observed a presumed wildlife violation in that year, with most of those reporting that they had observed one or two violations rather than a higher number of violations (Figure 22b). Response distributions derived from the metropolitan and nonmetropolitan general public samples were very similar, and therefore mirror the statewide pattern. As would be expected, reports of having observed wildlife law violations were substantially more common among hunting and fishing license purchasers -- nearly one-half (46.8%) of all license purchasers across the state observed what they believed to be a wildlife law violation in 1997.

Fig. 22a: Rating of Professionalism and Courteousness of Officers

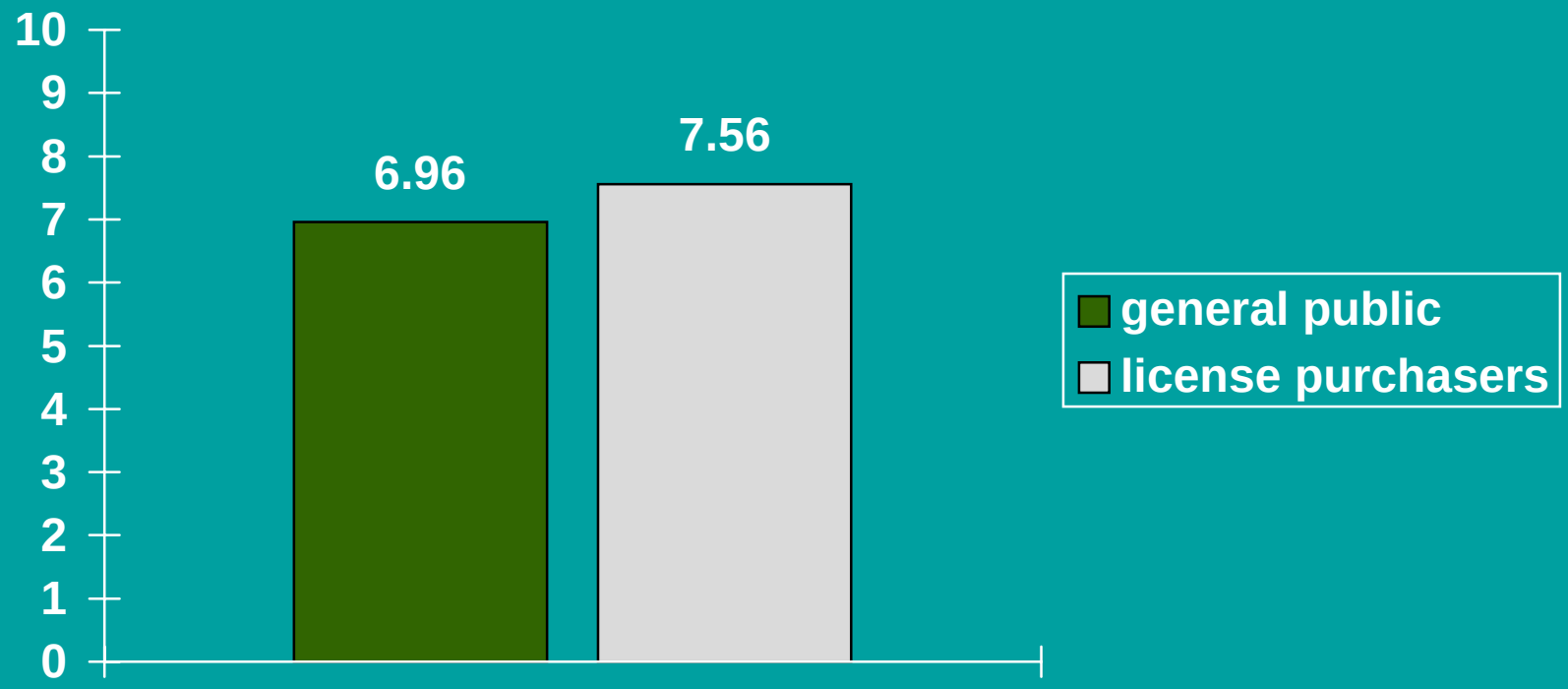
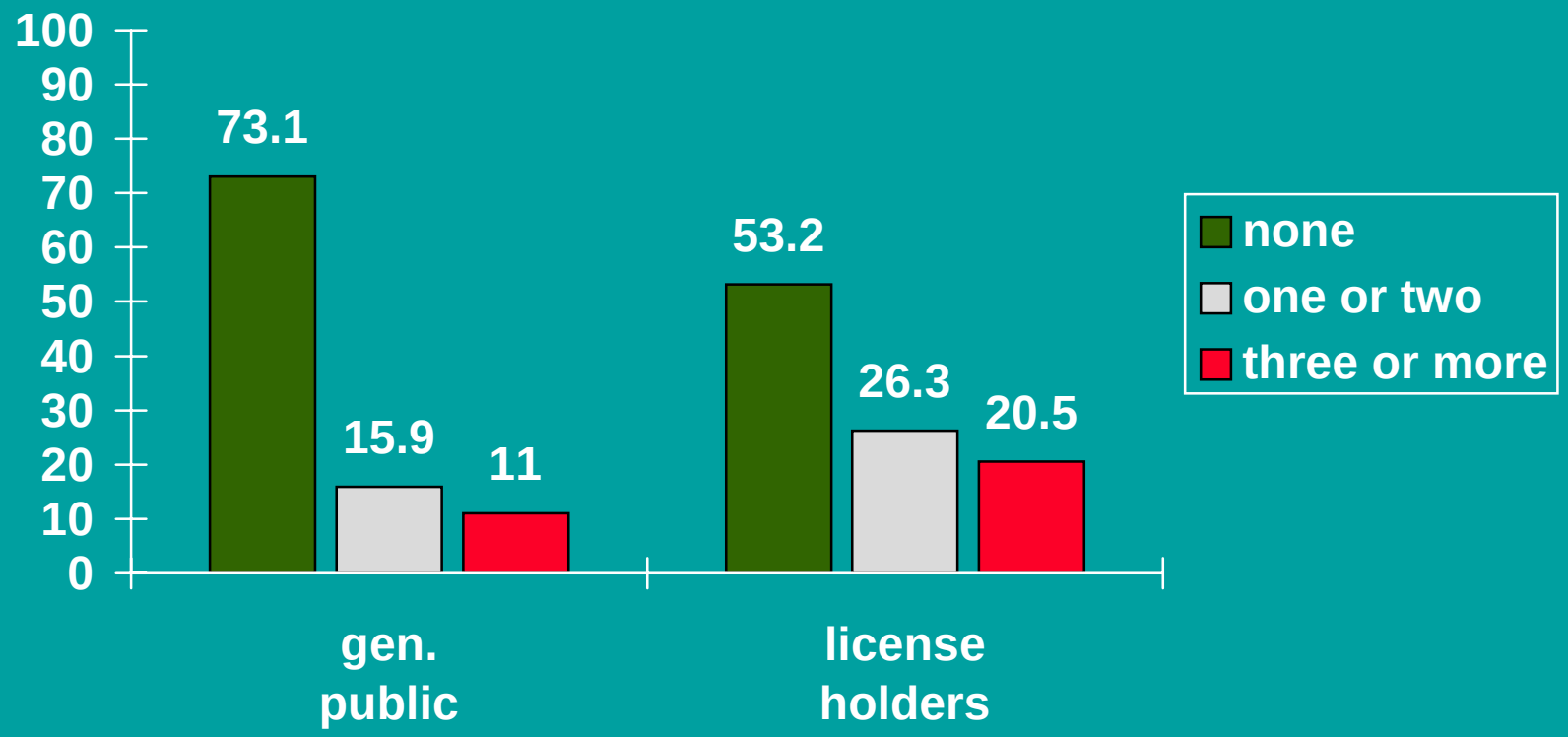


Table 22. Response distributions for ratings of professionalism and courteousness of DWR law officers, statewide general public and statewide license purchaser samples (percentages).

Rating	Statewide General Public Sample (weighted)	Statewide License Purchaser Sample (weighted)
0 (very poor)	11.5	4.4
1	1.3	2.8
2	3.0	0.0
3	2.5	3.2
4	3.8	1.0
5	5.4	6.4
6	4.7	4.7
7	7.0	9.8
8	17.5	26.6
9	11.1	12.4
10 (very good)	32.1	28.7
Number of cases	486	502
Mean response	6.96	7.56
Median response	8.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

Fig. 22b: Number of Observed Violations of Hunting, Fishing, or Wildlife Laws During 1997



Opinions about law enforcement priorities. A series of nine items asked respondents to indicate how much priority DWR should place on various law enforcement activities; responses were recorded on a scale ranging from 0 ("very low priority") to 10 ("very high priority"). In order to help keep total time requirements for the interviews to a reasonable level, this series of items randomly assigned for presentation to approximately one-half of all respondents.

As indicated in Figures 23a and 23b and Table 23, Utahns as a whole place a moderately high priority on having DWR enforce laws to protect federally-listed endangered species. For the general population as a whole, the mean response value was 6.68, with 14% of responses falling in the "very low priority" range (0-2) and about one-half (50.9%) falling in the "very high priority" (8-10) range. Residents of the Wasatch Front metropolitan area placed a somewhat higher priority on enforcing endangered species laws (mean = 6.79) than did nonmetropolitan residents (mean = 6.29). For license purchasers as a group, the mean response value (6.36) was slightly lower than for the public at large; higher priority ratings were provided by metropolitan hunting license purchasers (6.38) than by their nonmetropolitan (5.24) counterparts. Similarly, metropolitan fishing license purchasers placed a higher priority on enforcing endangered species protection laws (mean = 6.98) than did those from nonmetropolitan areas of Utah (mean = 6.37).

The second law enforcement priority question asked about enforcing laws to protect non-game bird species such as songbirds (Figures 24a and 24b, Table 24). For the public at large this item was rated as a moderately high priority, with a mean response value of 6.34; metropolitan residents placed a slightly priority of nongame birds (mean = 6.37) than did those from nonmetropolitan areas (mean = 6.22). License purchasers as a group were more neutral in their evaluations of the priority that should be placed on this law enforcement activity -- the overall mean response value for all license purchasers was just 5.62, with lower ratings provided by both

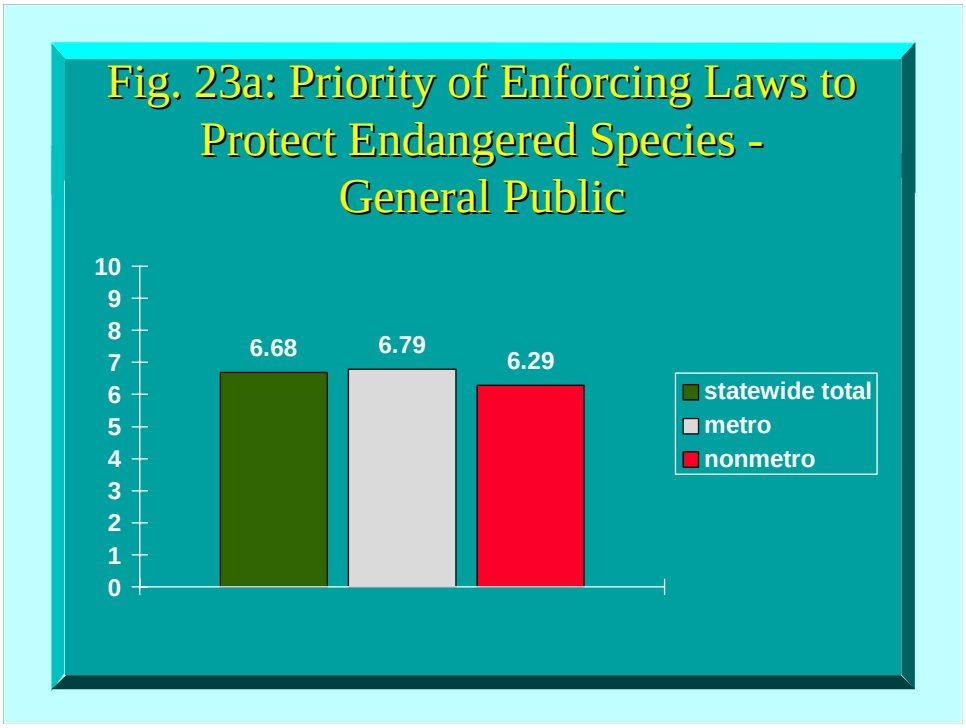


Fig. 23a: Priority of Enforcing Laws to Protect Endangered Species - General Public
10
9
8
7
6
5
4
3
2
1
0
6.68
6.79
6.29
statewide total
metro
nonmetro

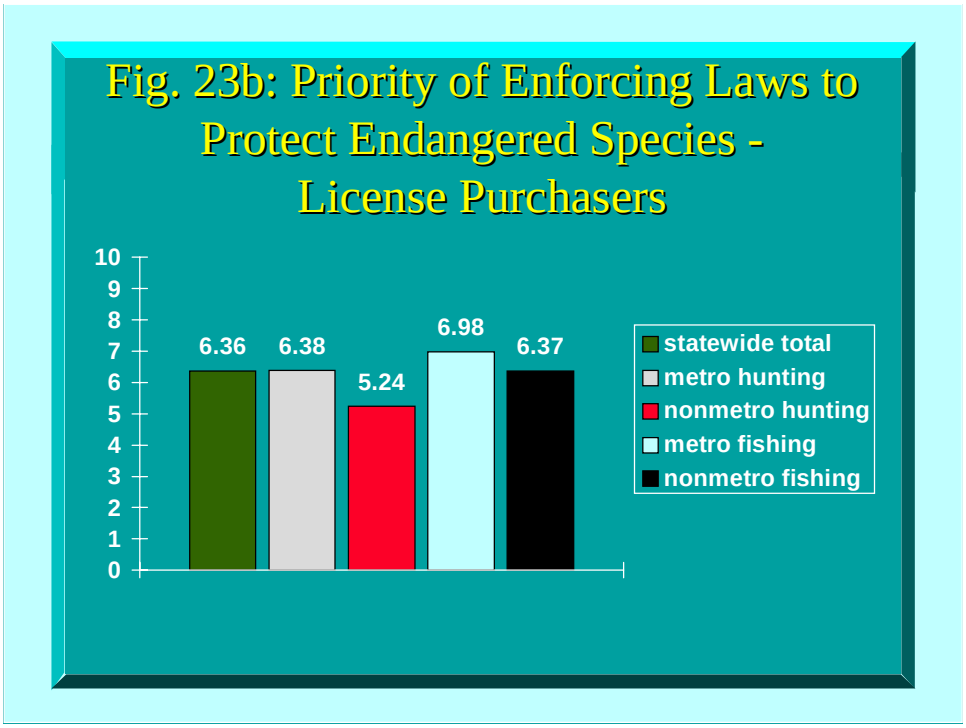


Fig. 23b: Priority of Enforcing Laws to Protect Endangered Species - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.36
6.38
5.24
6.98
6.37
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 23. Response distributions to question measuring attitudes about the priority of enforcing laws to protect endangered species, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	6.6	10.0	7.3	6.9	16.9	3.4	5.9	7.5
1	1.3	1.8	1.4	3.4	6.8	0.0	1.5	2.6
2	5.7	3.7	5.2	6.9	3.4	5.1	7.4	5.6
3	4.4	5.0	4.5	5.2	5.1	8.5	5.9	6.4
4	2.6	4.6	3.1	1.7	6.8	1.7	5.9	3.4
5	13.5	13.7	13.6	20.7	11.9	13.6	14.7	15.5
6	4.8	6.4	5.2	3.4	8.5	10.2	2.9	6.8
7	8.3	11.0	8.9	1.7	8.5	3.4	8.8	4.7
8	17.9	14.6	17.2	15.5	10.2	15.3	19.1	14.9
9	4.8	5.9	5.1	6.9	3.4	8.5	5.9	6.6
10 (very high priority)	30.1	23.3	28.6	27.6	18.6	30.5	22.1	26.0
Number of cases	229	219	988*	58	59	59	68	455*
Mean response	6.79	6.29	6.68	6.38	5.24	6.98	6.37	6.36
Median response	8.00	7.00	8.00	7.50	5.00	8.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

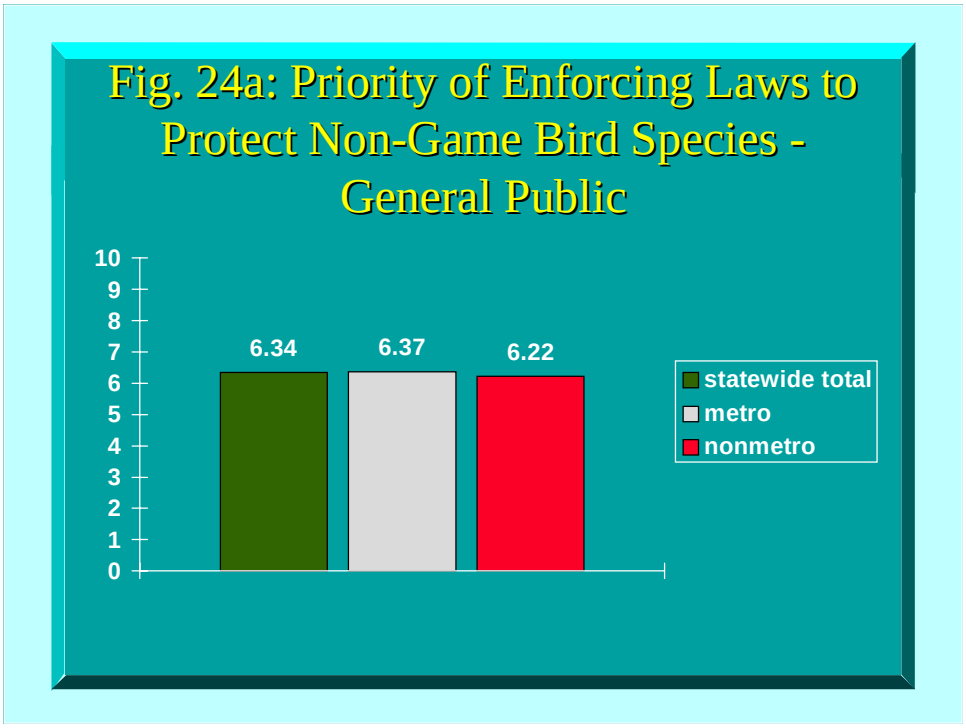


Fig. 24a: Priority of Enforcing Laws to Protect Non-Game Bird Species - General Public
10
9
8
7
6
5
4
3
2
1
0
6.34
6.37
6.22
statewide total
metro
nonmetro

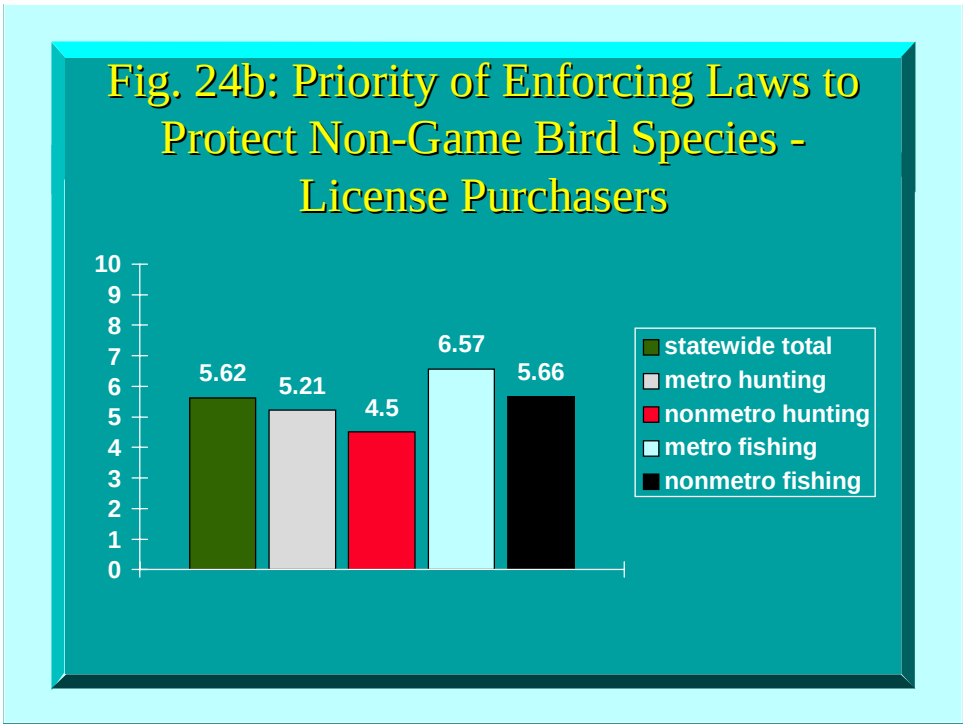


Fig. 24b: Priority of Enforcing Laws to Protect Non-Game Bird Species - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.62
5.21
4.5
6.57
5.66
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 24. Response distributions to question measuring attitudes about the priority of enforcing laws to protect non-game bird species, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	5.6	5.4	5.5	6.9	17.2	3.4	7.4	7.8
1	1.3	0.9	1.2	3.4	5.2	1.7	2.9	3.1
2	3.9	4.1	3.9	10.3	1.7	3.4	5.9	5.5
3	7.3	3.2	6.4	13.8	15.5	3.4	7.4	9.5
4	5.2	6.8	5.5	1.7	3.4	8.6	11.8	6.0
5	15.5	24.0	17.3	20.7	19.0	24.1	11.8	20.2
6	9.9	9.0	9.7	8.6	10.3	6.9	11.8	8.8
7	9.0	13.1	9.9	6.9	13.8	0.0	8.8	6.1
8	18.0	10.4	16.3	13.8	5.2	15.5	13.2	12.6
9	3.0	3.6	3.1	3.4	0.0	10.3	5.9	5.6
10 (very high priority)	21.5	19.5	21.0	10.3	8.6	22.4	13.2	14.7
Number of cases	233	221	1004*	58	58	58	68	450*
Mean response	6.37	6.22	6.34	5.21	4.50	6.57	5.66	5.62
Median response	7.00	6.00	7.00	5.00	5.00	6.00	6.00	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

metropolitan (mean = 5.21) and nonmetropolitan (mean = 4.50) hunting license purchasers as compared to metropolitan (mean = 6.57) or nonmetropolitan (mean = 5.66) fishing license purchasers.

Substantially higher priority was placed by survey respondents on enforcement of laws to protect fish and game species from being taken illegally, as summarized in Figures 25a and 25b and Table 25. For the combined statewide general public sample, the mean response value was 8.22, with nearly three-fourths of responses falling in the "very high priority" (8-10) range on the measurement scale. Responses from the nonmetropolitan general public sample indicated a somewhat higher priority on enforcing game harvest laws (mean = 8.63) than was the case among metropolitan residents (mean = 8.11). License purchasers as a group placed an extremely high priority on this law enforcement activity (mean = 8.96), with the both metropolitan (mean = 9.41) and nonmetropolitan (mean = 9.10) hunting license purchasers exhibiting higher support than either metro (mean = 8.63) or nonmetro (mean = 8.69) fishing license purchasers.

Enforcement of laws prohibiting people from having loaded firearms in vehicles was rated as a high priority by the public at large (Figures 26a, Table 26), as indicated by mean response values of 7.99 for the aggregated statewide sample, 8.01 for metropolitan residents, and 7.92 for nonmetro residents. Overall, fewer than 10% of general public respondents indicated that this issue should receive low priority. License purchasers as a group also placed very high priority (mean = 8.04) on this issue (Figure 26b), with the highest support evident among metropolitan hunting license purchasers (mean = 8.60) and the lowest among nonmetropolitan hunting license purchasers (mean = 7.33).

As indicated in Figures 27a and 27b and Table 27, enforcement of laws prohibiting people from driving under the influence of alcohol or drugs was rated as an extremely high priority by the

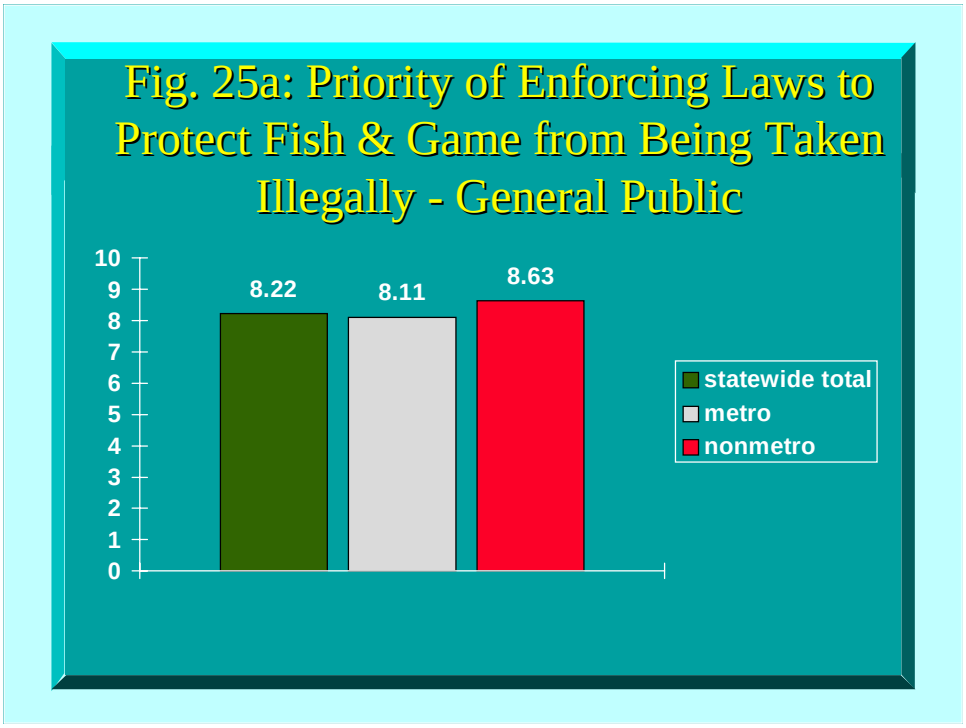


Fig. 25a: Priority of Enforcing Laws to Protect Fish & Game from Being Taken Illegally - General Public
10
9
8
7
6
5
4
3
2
1
0
8.22
8.11
8.63
statewide total
metro
nonmetro

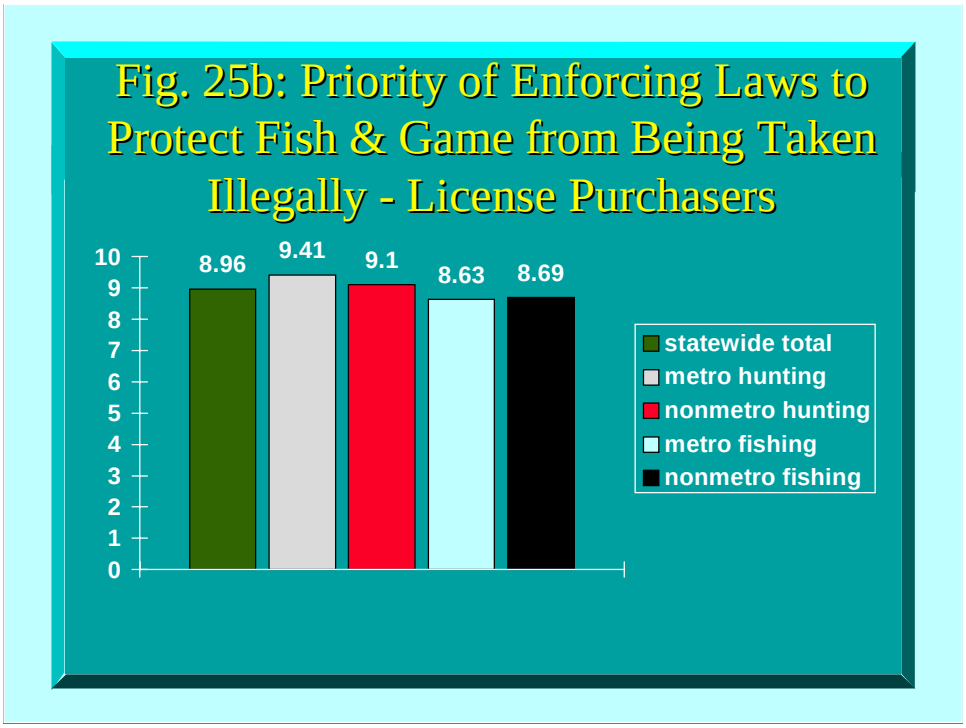


Fig. 25b: Priority of Enforcing Laws to Protect Fish & Game from Being Taken Illegally - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
8.96
9.41
9.1
8.63
8.69
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 25. Response distributions to question measuring attitudes about the priority of enforcing laws to protect fish & game from being taken illegally, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	4.7	2.7	4.2	0.0	0.0	3.4	0.0	1.2
1	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.2
3	2.1	0.4	1.8	0.0	0.0	0.0	1.5	0.2
4	1.7	0.4	1.4	0.0	0.0	0.0	0.0	0.0
5	2.1	3.1	2.3	0.0	3.3	1.7	1.5	1.5
6	6.8	2.7	5.9	1.7	0.0	6.8	7.4	4.0
7	11.5	8.4	10.8	5.2	4.9	6.8	5.9	5.8
8	15.7	20.9	16.9	10.3	21.3	16.9	17.6	16.0
9	9.8	11.1	10.1	15.5	16.4	13.6	19.1	15.5
10 (very high priority)	45.1	50.2	46.2	67.2	54.1	50.8	45.6	55.5
Number of cases	235	225	1015*	58	61	59	68	458*
Mean response	8.11	8.63	8.22	9.41	9.10	8.63	8.69	8.96
Median response	9.00	10.00	9.00	10.00	10.00	10.00	9.00	10.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

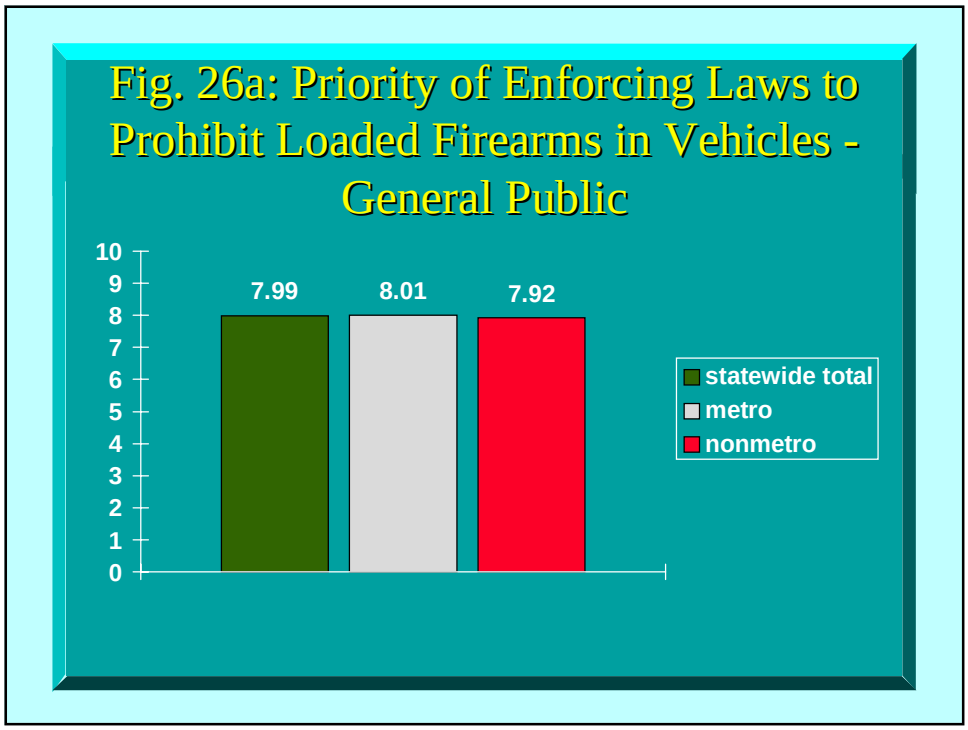


Fig. 26a: Priority of Enforcing Laws to Prohibit Loaded Firearms in Vehicles - General Public
10
9
8
7
6
5
4
3
2
1
0
7.99
8.01
7.92
statewide total
metro
nonmetro

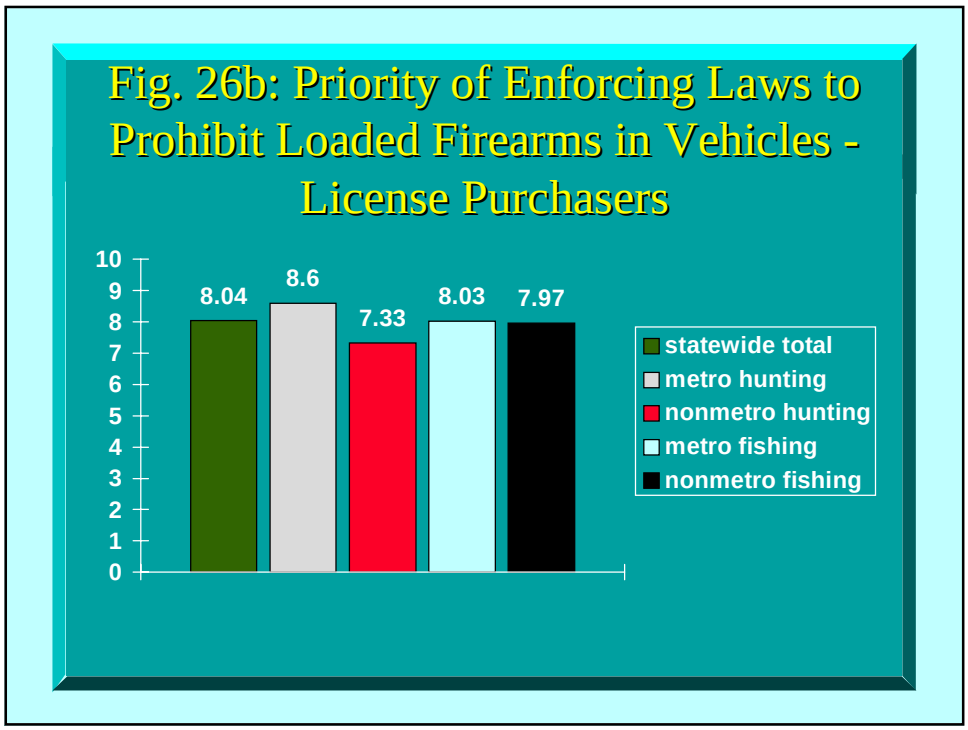


Fig. 26b: Priority of Enforcing Laws to Prohibit Loaded Firearms in Vehicles - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
8.04
8.6
7.33
8.03
7.97
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 26. Response distributions to question measuring attitudes about the priority of enforcing laws to prohibit loaded firearms in vehicles, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	5.2	4.9	5.1	1.8	4.9	3.4	5.9	3.6
1	0.0	2.7	0.6	0.0	4.9	0.0	0.0	1.0
2	1.7	4.5	2.3	0.0	3.3	0.0	2.9	1.1
3	2.2	0.9	1.9	5.3	0.0	3.4	1.5	2.9
4	0.9	3.6	1.5	0.0	3.3	3.4	0.0	1.9
5	7.8	4.5	7.0	8.8	9.8	11.9	4.4	9.4
6	4.3	1.8	3.7	0.0	4.9	5.1	5.9	3.7
7	8.6	4.9	7.8	5.3	6.6	3.4	8.8	5.4
8	9.9	7.6	9.4	7.0	16.4	11.9	13.2	11.6
9	11.6	12.1	11.7	12.3	6.6	5.1	11.8	8.5
10 (very high priority)	47.8	52.7	48.9	59.6	39.3	52.5	45.6	50.8
Number of cases	232	224	1004*	57	61	59	68	456*
Mean response	8.01	7.92	7.99	8.60	7.33	8.03	7.97	8.04
Median response	9.00	10.00	9.00	10.00	8.00	10.00	9.00	10.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

Fig. 27a: Priority of Enforcing Laws that Prohibit DUI's - General Public

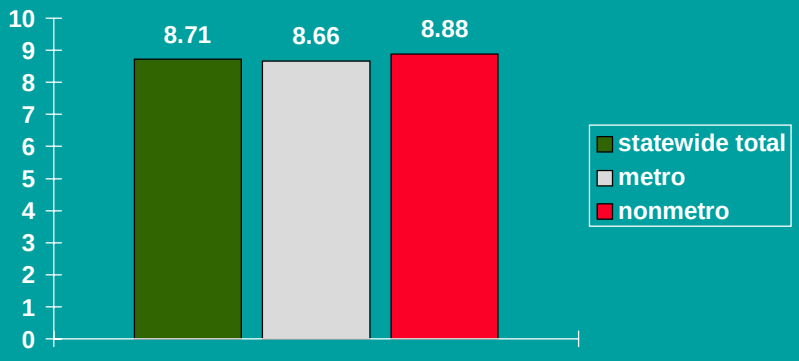


Fig. 27b: Priority of Enforcing Laws that Prohibit DUI's - License Purchasers

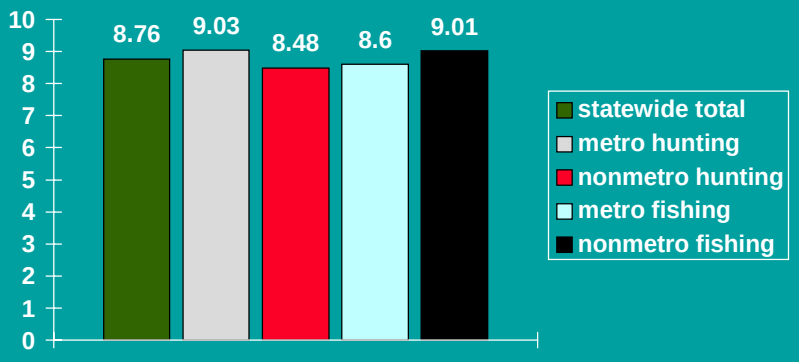


Table 27. Response distributions to question measuring attitudes about the priority of enforcing laws to prohibit DUI's, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	5.6	4.0	5.2	1.7	6.6	3.3	4.4	3.7
1	0.4	0.4	0.4	0.0	1.6	0.0	0.0	0.3
2	1.3	1.3	1.3	0.0	0.0	1.7	0.0	0.6
3	0.9	0.9	0.9	0.0	0.0	3.3	0.0	1.2
4	1.7	2.2	1.8	0.0	0.0	0.0	1.5	0.2
5	3.4	3.5	3.4	8.6	4.9	5.0	2.9	5.7
6	1.3	1.8	1.4	1.7	1.6	3.3	1.5	2.2
7	2.1	1.3	2.0	1.7	0.0	1.7	1.5	1.3
8	6.8	2.2	5.8	10.3	19.7	10.0	7.4	11.7
9	6.0	4.4	5.6	3.4	1.6	6.7	5.9	4.6
10 (very high priority)	70.5	77.9	72.2	72.4	63.9	65.0	75.0	68.4
Number of cases	234	226	1012*	58	61	60	68	461*
Mean response	8.66	8.88	8.71	9.03	8.48	8.60	9.01	8.76
Median response	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions.

general public (mean = 8.71) and license purchasers (mean = 8.76); for both of these statewide aggregations, the proportion of individuals falling in the "very high priority" range (8-10) on the response scale was in excess of 80%. Although minor variations occurred across the individual sampling groups, overall there were similarly high ratings of the priority of enforcing DUI laws on the part of both metropolitan and nonmetropolitan residents and license purchasers.

Enforcement of laws requiring people to acquire a license before hunting or fishing was also rated as a very high priority, as revealed in Figures 28a and 28b and Table 28. Among the statewide general public, the mean response value on the 0-10 scale was 8.44, with fewer than 5% of responses falling in the "very low priority" (0-2) range. Both metropolitan-area residents (mean = 8.35) and nonmetropolitan residents (mean = 8.76) expressed strong beliefs that enforcement of licensing requirements should be an extremely high priority for DWR law enforcement officers. Licensed hunters and anglers as a group also expressed a very high priority for this law enforcement activity (mean = 8.83), with all license purchaser categories expressing generally similar orientations.

Enforcement of laws that prohibit trespassing on private property (Figures 29a and 29b, Table 29) was rated as a high priority by the public at large (mean = 7.43), with metropolitan residents placing a slightly lower priority on this activity (mean = 7.26) than was the case among nonmetropolitan residents (mean = 7.99). License purchasers also expressed a high overall priority for enforcement of trespass laws (mean = 7.50); the highest level of support was expressed by metropolitan hunting license buyers (mean = 8.24), while metropolitan fishing license purchasers (mean = 7.08) and nonmetropolitan hunting license purchasers (mean = 7.05) were slightly less enthusiastic, although those groups still placed a high priority on this item.

Enforcing laws that prohibit littering or polluting was also rated as a high priority (Figures

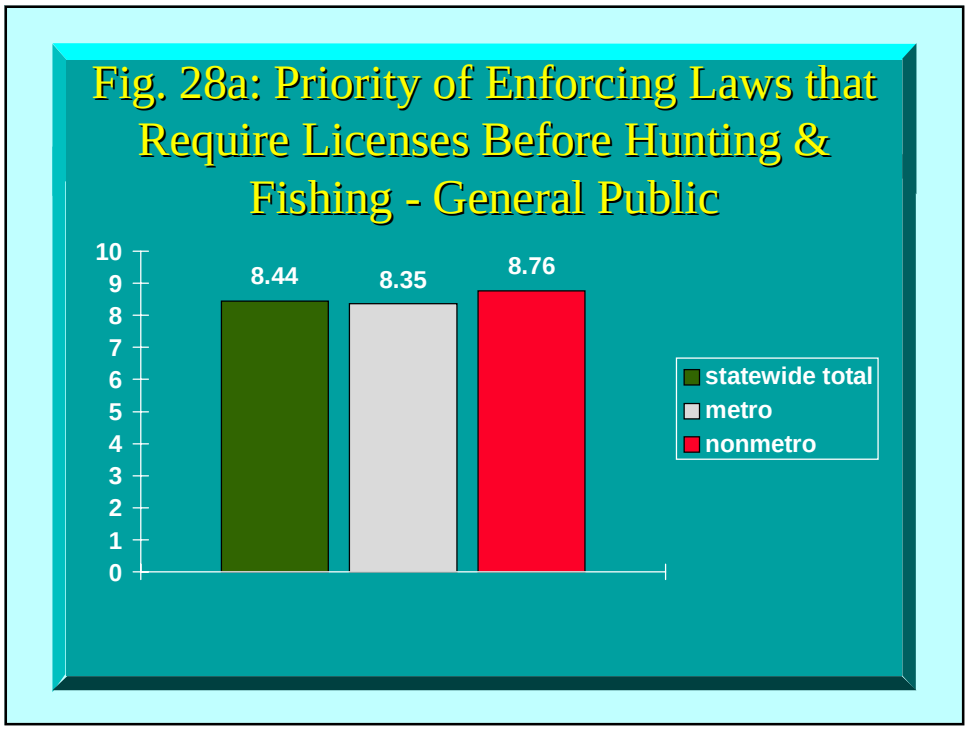


Fig. 28a: Priority of Enforcing Laws that Require Licenses Before Hunting & Fishing - General Public
10
9
8
7
6
5
4
3
2
1
0
8.44
8.35
8.76
statewide total
metro
nonmetro

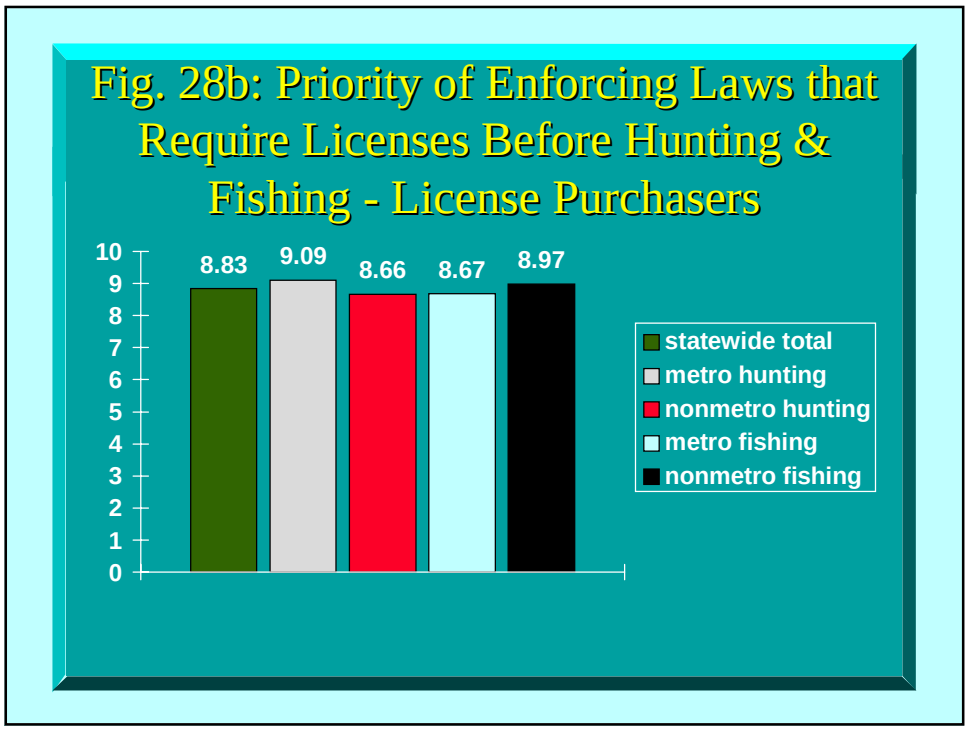


Fig. 28b: Priority of Enforcing Laws that Require Licenses Before Hunting & Fishing - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
8.83
9.09
8.66
8.67
8.97
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 28. Response distributions to question measuring attitudes about the priority of enforcing laws to require individuals to have licenses, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	5.1	2.2	4.5	1.7	0.0	3.3	0.0	1.7
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.4	0.4	0.4	0.0	1.6	0.0	0.0	0.3
3	0.9	0.9	0.9	1.7	1.6	0.0	3.0	1.3
4	0.9	0.9	0.9	0.0	3.3	1.7	1.5	1.5
5	3.0	4.4	3.3	0.0	3.3	5.0	3.0	2.9
6	5.6	1.8	4.7	3.4	1.6	0.0	0.0	1.3
7	7.7	7.6	7.7	6.9	6.6	5.0	3.0	5.6
8	14.5	11.1	13.8	10.3	18.0	21.7	17.9	17.1
9	9.8	12.4	10.4	6.9	11.5	6.7	13.4	8.7
10 (very high priority)	52.1	58.2	53.5	69.0	52.5	56.7	58.2	59.6
Number of cases	234	225	1011*	58	61	60	67	460*
Mean response	8.35	8.76	8.44	9.09	8.66	8.67	8.97	8.83
Median response	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

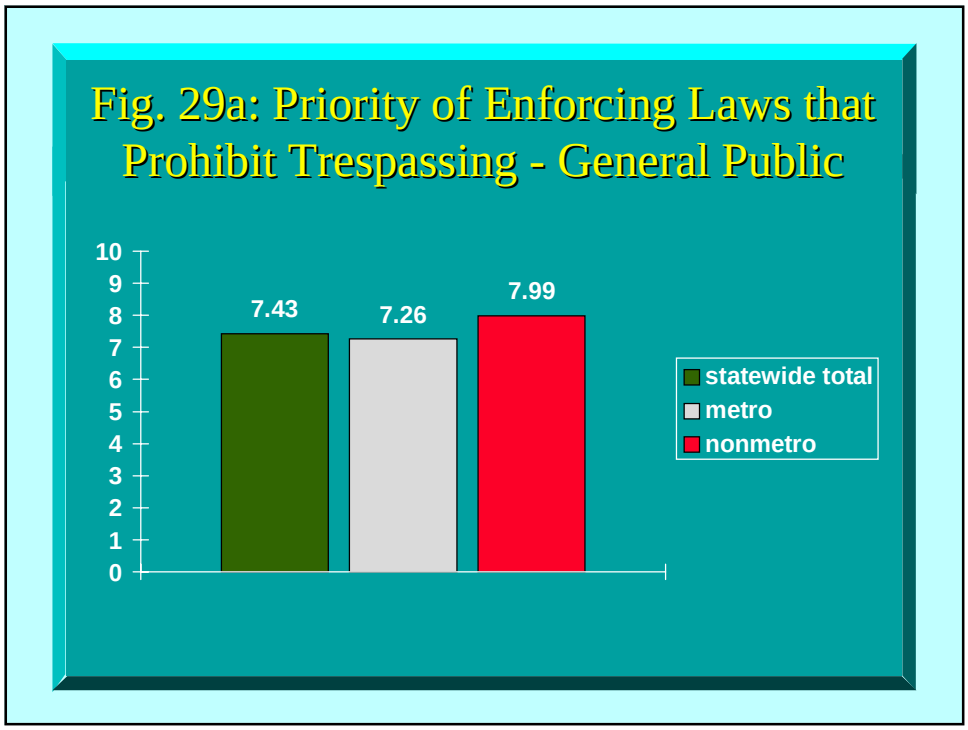


Fig. 29a: Priority of Enforcing Laws that Prohibit Trespassing - General Public
10
9
8
7
6
5
4
3
2
1
0
7.43
7.26
7.99
statewide total
metro
nonmetro

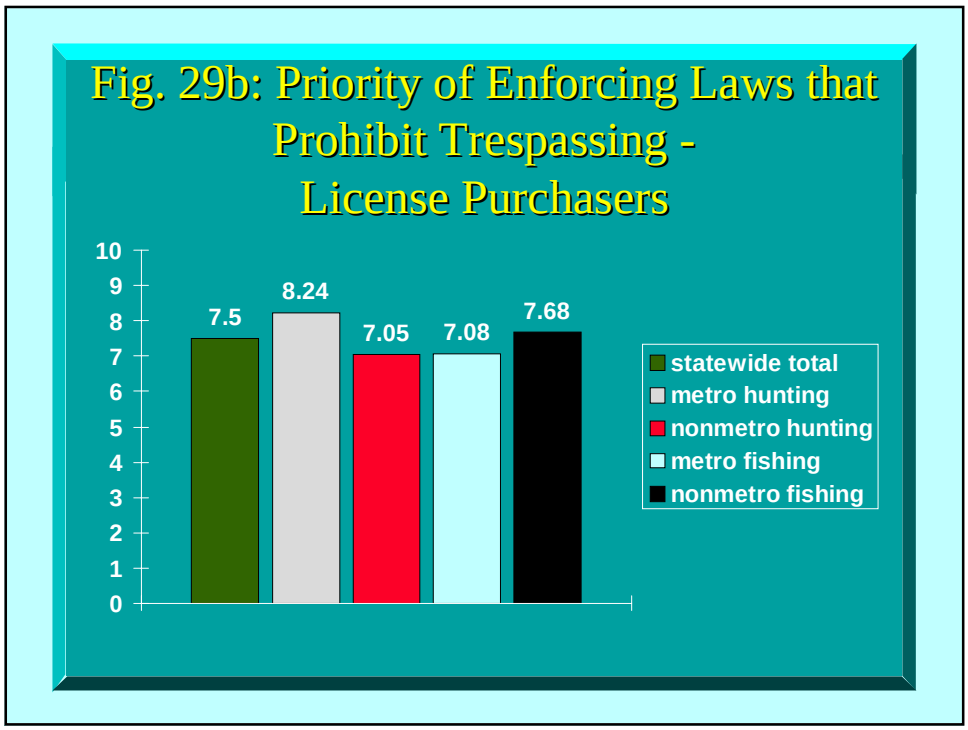


Fig. 29b: Priority of Enforcing Laws that Prohibit Trespassing - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.5
8.24
7.05
7.08
7.68
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 29. Response distributions to question measuring attitudes about the priority of enforcing laws to prohibit trespassing on private property, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	4.7	3.1	4.4	1.7	6.6	3.3	4.4	3.7
1	0.0	0.4	0.1	1.7	0.0	1.7	1.5	1.3
2	3.0	3.1	3.0	0.0	1.6	1.7	2.9	1.4
3	4.3	1.3	3.6	0.0	4.9	1.7	0.0	1.6
4	3.8	1.8	3.4	1.7	1.6	5.0	1.5	2.8
5	11.5	8.0	10.8	3.4	16.4	21.7	7.4	13.2
6	6.0	6.3	6.0	6.9	4.9	5.0	5.9	5.7
7	11.5	5.8	10.3	12.1	14.8	6.7	11.8	10.6
8	14.5	14.3	14.5	25.9	9.8	18.3	17.6	18.7
9	4.3	9.4	5.4	0.0	6.6	3.3	11.8	4.3
10 (very high priority)	36.3	46.4	38.6	46.6	32.8	31.7	35.3	36.7
Number of cases	234	224	1010*	58	61	60	68	461*
Mean response	7.26	7.99	7.43	8.24	7.05	7.08	7.68	7.50
Median response	8.00	9.00	8.00	8.00	7.00	8.00	8.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

30a and 30b, Table 30). For the weighted statewide sample, the mean response value was 8.33, indicating that this enforcement issue is viewed as extremely important by most Utahns. Residents of metropolitan counties placed a slightly lower priority on enforcing litter/pollution laws (mean = 8.26; 74% in 8-10 range) than did nonmetropolitan residents (mean = 8.57; 78.3% in 8-10 range), but both segments clearly consider this to be extremely important. License purchasers statewide also place a high priority on this enforcement activity (mean = 8.40), with nonmetropolitan hunting license buyers reporting slightly lower overall priority levels (mean = 7.97) and metropolitan hunting license purchasers reporting the highest priority levels (mean = 8.83).

The final item in the law enforcement section asked respondents to indicate how much priority DWR law enforcement officers should place on efforts to educate the public through participation in organized programs at schools or other similar events. As indicated in Figures 31a and 31b and Table 31, this also was rated as a very high priority by most respondents. For the aggregated statewide general public sample, the mean response was 7.82, with about two-thirds of responses in the "very high priority" (8-10) range. Both metropolitan-area residents (mean = 7.79) and nonmetropolitan residents (mean = 7.91) emphasized this as an important priority for DWR law enforcement officers. License purchasers as a group (mean = 7.91) expressed views similar to those of the general public, with metropolitan-area hunting license purchasers expressing the highest level of support (mean = 8.40) for this activity.

Opinions about Wildlife Habitat Acquisition

The survey included a series of eight questions addressing respondents' views about having DWR acquire and maintain parcels of land and water rights in order to protect wildlife and

Fig. 30a: Priority of Enforcing Laws that Prohibit Littering - General Public

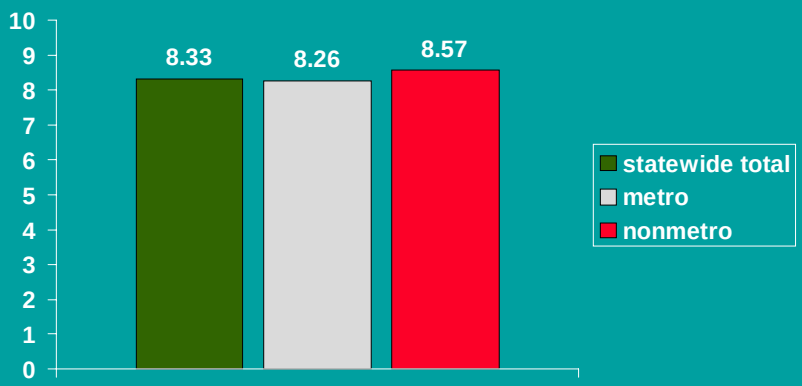


Fig. 30b: Priority of Enforcing Laws that Prohibit Littering - License Purchasers

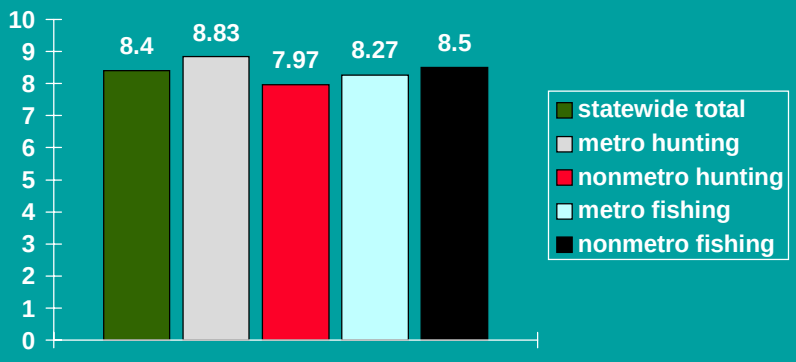


Table 30. Response distributions to question measuring attitudes about the priority of enforcing laws to prohibit littering or polluting, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	5.5	3.1	5.0	1.7	3.3	5.0	0.0	3.0
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.4	0.4	0.4	0.0	3.3	1.7	1.5	1.5
3	0.9	0.9	0.9	0.0	1.6	1.7	1.5	1.2
4	1.3	1.3	1.3	0.0	3.3	0.0	4.4	1.3
5	6.8	5.3	6.5	3.4	6.6	5.0	1.5	4.4
6	1.7	4.4	2.3	1.7	6.6	6.7	7.4	5.3
7	9.4	6.2	8.7	6.9	6.6	6.7	8.8	7.0
8	11.9	11.5	11.8	19.0	14.8	10.0	13.2	14.0
9	8.9	8.4	8.8	17.2	4.9	6.7	11.8	10.1
10 (very high priority)	53.2	58.4	54.4	50.0	49.2	56.7	50.0	52.2
Number of cases	235	226	1016*	58	61	60	68	461*
Mean response	8.26	8.57	8.33	8.83	7.97	8.27	8.50	8.40
Median response	10.00	10.00	10.00	9.50	9.00	10.00	9.50	10.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Fig. 31a: Priority of Educating the Public about Wildlife - General Public

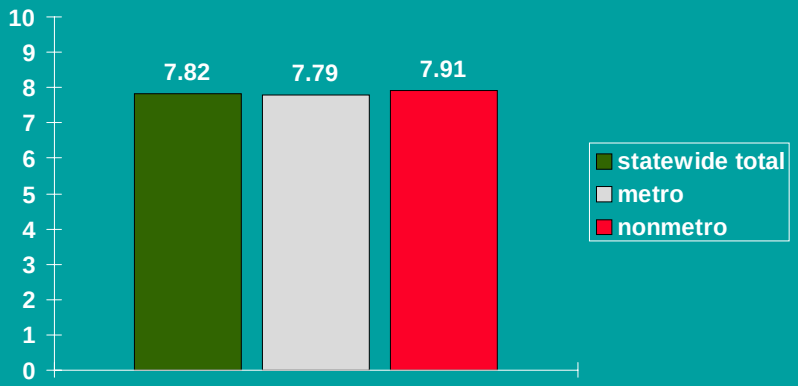


Fig. 31b: Priority of Educating the Public about Wildlife - License Purchasers

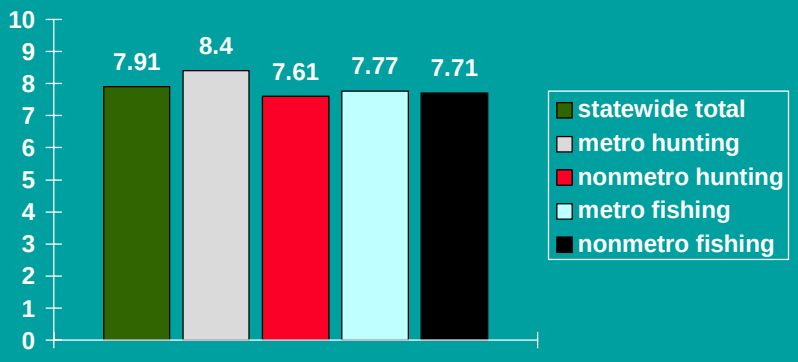


Table 31. Response distributions to question measuring attitudes about the priority of educating the public, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	4.3	3.1	4.0	0.0	1.6	3.3	2.9	2.0
1	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0
2	0.0	1.3	0.3	0.0	3.3	0.0	0.0	0.7
3	0.4	2.2	0.8	0.0	1.6	0.0	1.5	0.6
4	1.7	2.2	1.8	0.0	3.3	3.3	2.9	2.3
5	9.4	7.0	8.8	6.9	14.8	6.7	11.8	9.1
6	6.0	4.8	5.7	13.8	1.6	13.3	1.5	9.3
7	13.2	10.6	12.6	12.1	11.5	8.3	14.7	11.0
8	22.6	21.1	22.2	15.5	21.3	25.0	27.9	21.9
9	9.8	6.2	9.0	3.4	8.2	8.3	7.4	6.7
10 (very high priority)	32.8	41.0	34.6	48.3	32.8	31.7	29.4	36.4
Number of cases	235	227	1017*	58	61	60	68	461*
Mean response	7.79	7.91	7.82	8.40	7.61	7.77	7.71	7.91
Median response	8.00	8.00	8.00	9.00	8.00	8.00	8.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

fish habitat and open space. All of these items requested that respondents indicate how much priority should be placed on acquisition of various types of land or resources, with responses recorded on a scale ranging from 0 ("very low priority") to 10 ("very high priority"). As with several other segments of the survey, approximately one-half of survey participants were asked to respond to these questions in order to reduce the overall length of the interviews.

The first question in this series asked respondents to indicate how much priority DWR should place on the acquisition of farm and ranch areas located near to heavily populated urban communities in order to protect wildlife and fish habitat. As indicated in Figures 32a and 32b and Table 32, respondents were ambivalent overall about this type of program. For the general public as a whole, the mean response value (5.24) was near the midpoint of the response scale, with about one-fifth of responses in the "very low priority" range (0-2) and similar proportion in the "very high priority" (8-10) range. The single largest response category for the combined statewide sample was the scale midpoint value of 5, which contained about one-fifth of all responses. Metropolitan and nonmetropolitan response patterns were very similar to one another and mirrored the statewide pattern. License purchasers as a group were slightly more likely to prioritize this type of habitat acquisition, with metro-area fishing license purchasers being especially positive about doing so.

Figures 33a and 33b and Table 33 summarize responses to a question asking respondents to rate the priority that should be placed on having DWR acquire open space areas within residential areas of cities and towns to provide residents with wildlife observation opportunities. Overall, respondents from the general public sample were only moderately supportive of this type of emphasis, as indicated by mean response values of 5.8 for the aggregated statewide sample, 5.9 for metro-area residents and 5.4 for nonmetro residents. For the aggregated statewide general

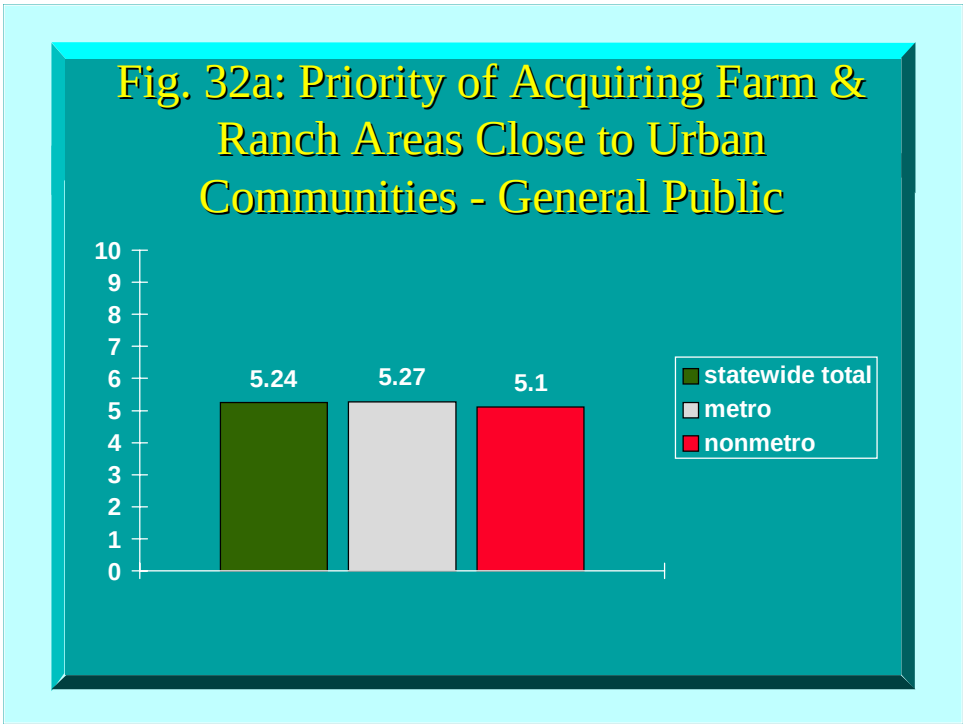


Fig. 32a: Priority of Acquiring Farm & Ranch Areas Close to Urban Communities - General Public
10
9
8
7
6
5
4
3
2
1
0
5.24
5.27
5.1
statewide total
metro
nonmetro

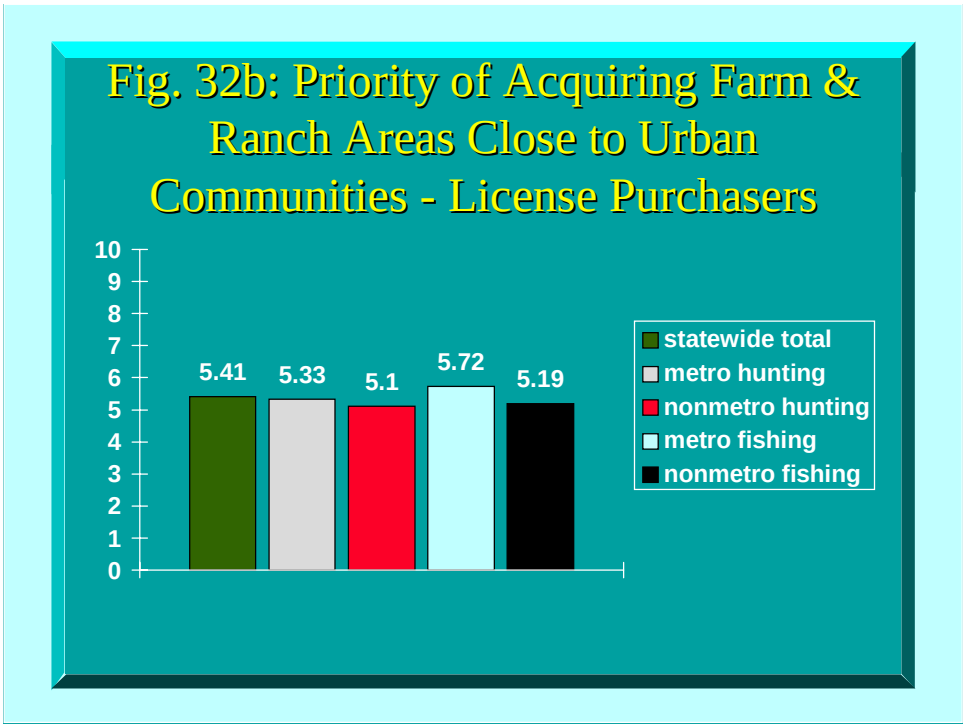


Fig. 32b: Priority of Acquiring Farm & Ranch Areas Close to Urban Communities - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.41
5.33
5.1
5.72
5.19
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 32. Response distributions to question measuring attitudes about the priority of acquiring farm & ranch areas, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	5.4	8.9	6.2	10.9	8.6	6.9	14.0	9.4
1	4.9	4.5	4.8	1.6	5.2	0.0	5.3	2.2
2	10.3	5.4	9.2	3.1	10.3	1.7	1.8	3.9
3	5.9	11.4	7.1	10.9	10.3	5.2	8.8	8.5
4	7.8	5.0	7.2	4.7	1.7	12.1	10.5	7.4
5	20.6	22.8	21.1	23.4	24.1	15.5	19.3	20.3
6	9.8	10.4	9.9	12.5	5.2	19.0	7.0	12.6
7	13.2	8.4	12.1	7.8	12.1	19.0	3.5	12.0
8	9.8	11.9	10.3	9.4	5.2	10.3	8.8	8.8
9	2.5	3.0	2.6	4.7	3.4	5.2	1.8	4.2
10 (very high priority)	9.8	8.4	9.5	10.9	13.8	5.2	19.3	10.5
Number of cases	204	202	887*	64	58	58	57	453*
Mean response	5.27	5.10	5.24	5.33	5.10	5.72	5.19	5.41
Median response	5.00	5.00	5.00	5.00	5.00	6.00	5.00	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

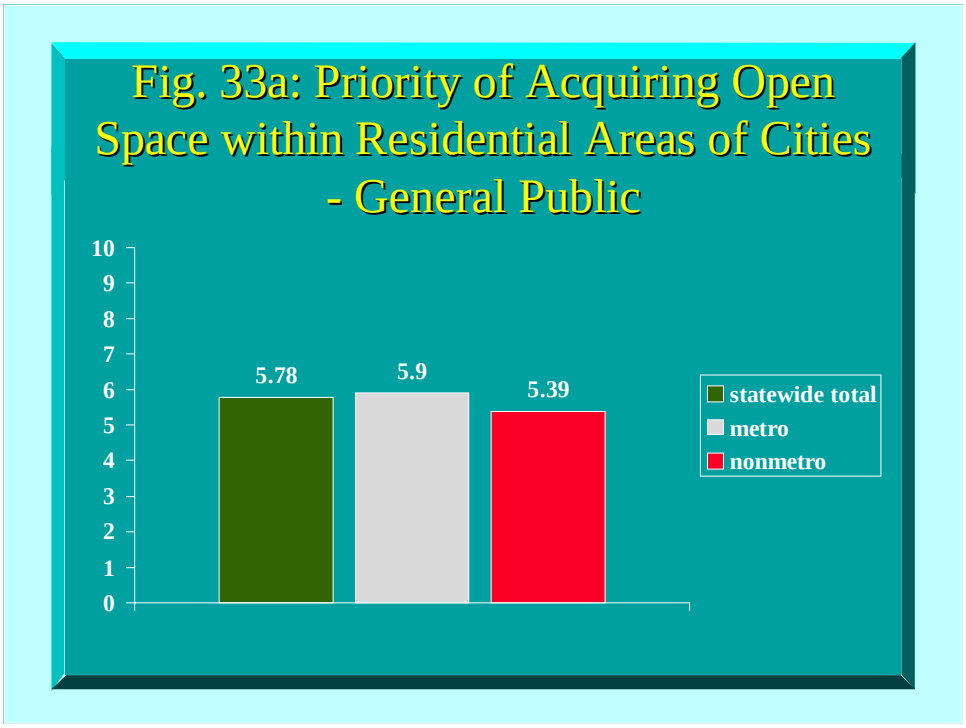


Fig. 33a: Priority of Acquiring Open Space within Residential Areas of Cities - General Public
10
9
8
7
6
5
4
3
2
1
0
5.78
5.9
5.39
statewide total
metro
nonmetro

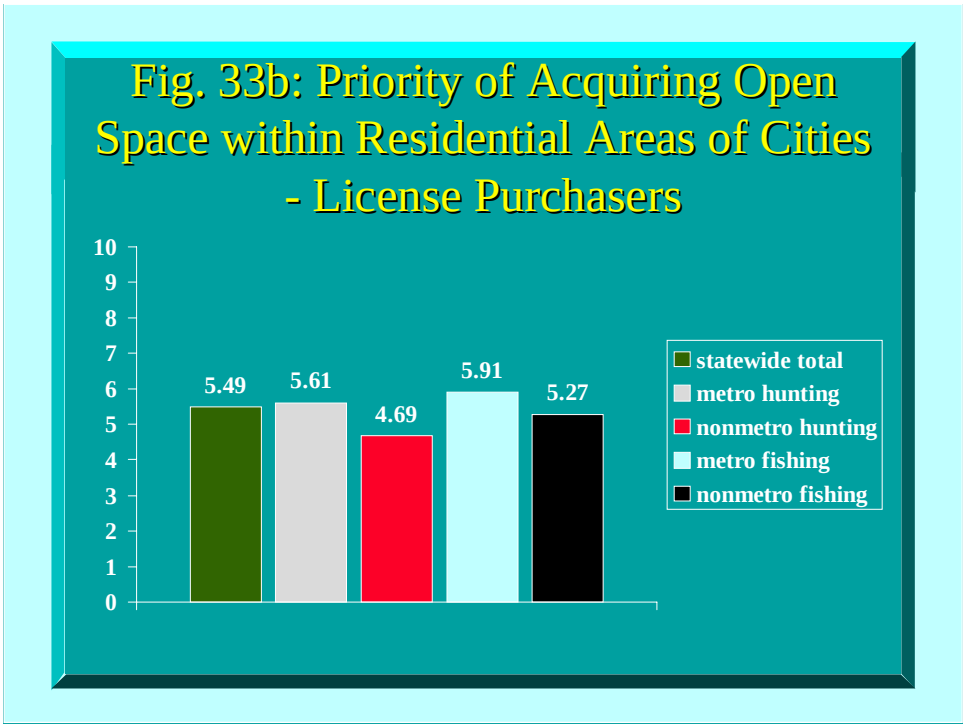


Fig. 33b: Priority of Acquiring Open Space within Residential Areas of Cities - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.49
5.61
4.69
5.91
5.27
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 33. Response distributions to question measuring attitudes about the priority of acquiring open space within residential areas, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	6.0	7.5	6.4	11.9	14.8	8.6	16.4	11.9
1	2.3	4.2	2.8	3.0	3.3	1.7	1.8	2.5
2	8.8	5.7	8.1	4.5	9.8	8.6	7.3	7.3
3	5.1	9.4	6.1	4.5	14.8	3.4	3.6	6.1
4	6.0	5.2	5.8	7.5	3.3	5.2	5.5	5.6
5	14.8	21.2	16.3	17.9	11.5	10.3	21.8	14.5
6	8.8	10.8	9.3	7.5	9.8	8.6	1.8	7.7
7	16.7	10.4	15.2	10.4	11.5	17.2	10.9	13.1
8	11.6	10.8	11.4	13.4	9.8	20.7	12.7	15.1
9	4.6	2.8	4.2	3.0	1.6	3.4	1.8	2.7
10 (very high priority)	15.3	11.8	14.5	16.4	9.8	12.1	16.4	13.6
Number of cases	216	212	938*	67	61	58	55	463*
Mean response	5.90	5.39	5.78	5.61	4.69	5.91	5.27	5.49
Median response	6.00	5.00	6.00	6.00	5.00	7.00	5.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

public sample about 17% of responses were in the “very low priority” (0-2) range and about 30% were in the “very high priority” (8-10) range. License purchasers as a group expressed generally similar responses, though nonmetropolitan hunting license purchasers were notably less supportive of this type of program emphasis (mean = 4.69) than were the other license purchaser categories.

Responses to an item addressing priorities that should be assigned to acquisition of land areas needed to maintain or increase deer and elk populations indicated substantially higher support than for the two items discussed above (see Figures 34a and 34b and Table 34). Among the public across the state as a whole the mean response value was 7.35, with only about 4% of responses in the “very low priority” range and about 50% in the “very high priority” range. Metropolitan-area residents were slightly more positive about this type of program emphasis (mean = 7.47) than were nonmetro residents (mean = 6.92). Hunting and fishing license purchasers as a group were highly enthusiastic (mean = 7.94), with metro-area hunting license purchasers expressing exceptionally high levels of support (mean = 8.51).

Figures 35a and 35b and Table 35 summarize responses to an item asking about the priority that DWR should place on acquisition of lands that would provide places for public hunting access. Among the general public, this received moderately high support, as indicated by mean response values of 6.23 for the aggregated statewide sample, 6.29 for metro-area residents, and 6.0 for nonmetro residents. In comparison with the general public response patterns, results derived from the license purchaser samples indicated substantially higher support for prioritizing acquisition of lands for hunting access (Figure 35b), with especially high levels of support evident among the metro-area (mean = 7.81) and nonmetro (mean = 8.05) hunting license purchasers.

Responses to an item that asked about the priority that should be placed on acquisition of

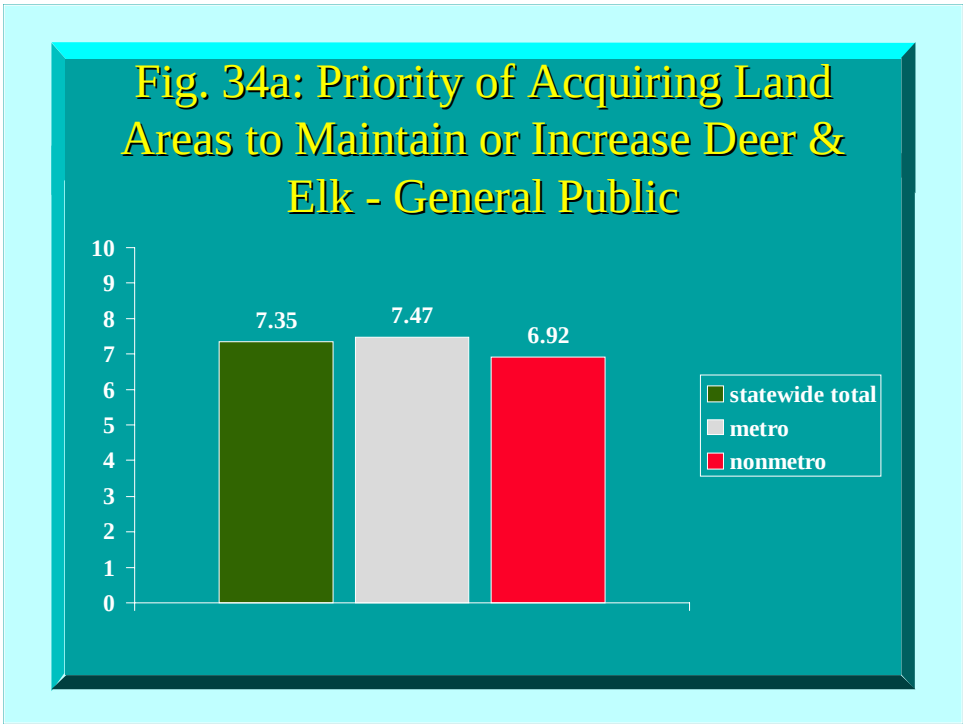


Fig. 34a: Priority of Acquiring Land Areas to Maintain or Increase Deer & Elk - General Public
10
9
8
7
6
5
4
3
2
1
0
7.35
7.47
6.92
statewide total
metro
nonmetro

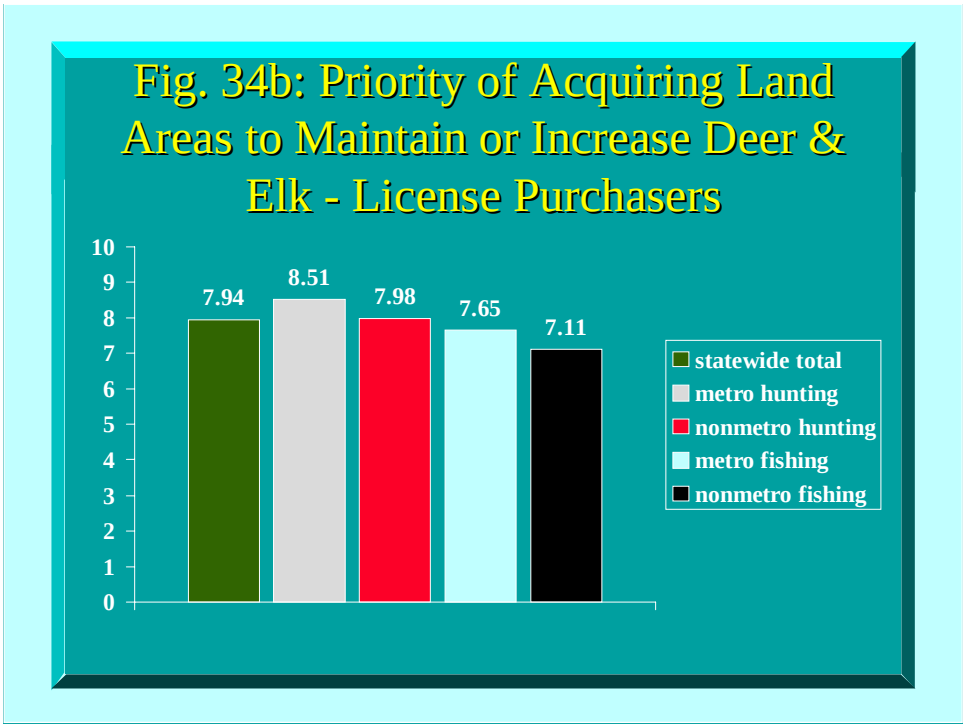


Fig. 34b: Priority of Acquiring Land Areas to Maintain or Increase Deer & Elk - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.94
8.51
7.98
7.65
7.11
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 34. Response distributions to question measuring attitudes about the priority of acquiring land areas to maintain deer & elk, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	0.5	3.3	1.1	5.9	6.5	1.7	5.4	4.5
1	1.4	1.9	1.5	0.0	0.0	1.7	0.0	0.6
2	1.4	1.4	1.4	0.0	0.0	0.0	5.4	0.6
3	1.4	1.9	1.5	0.0	3.2	1.7	1.8	1.4
4	1.9	1.4	1.8	1.5	1.6	5.0	0.0	2.6
5	11.7	17.1	12.9	0.0	6.5	5.0	7.1	3.9
6	8.9	10.9	9.3	0.0	4.8	8.3	10.7	5.2
7	23.4	16.6	21.8	8.8	4.8	13.3	21.4	11.1
8	15.0	19.4	16.0	19.1	16.1	26.7	16.1	20.8
9	9.3	7.1	8.8	16.2	6.5	10.0	5.4	10.8
10 (very high priority)	25.2	19.0	23.8	48.5	50.0	26.7	26.8	38.6
Number of cases	214	211	930*	68	62	60	56	473*
Mean response	7.47	6.92	7.35	8.51	7.98	7.65	7.11	7.94
Median response	7.00	7.00	7.00	9.00	9.50	8.00	7.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

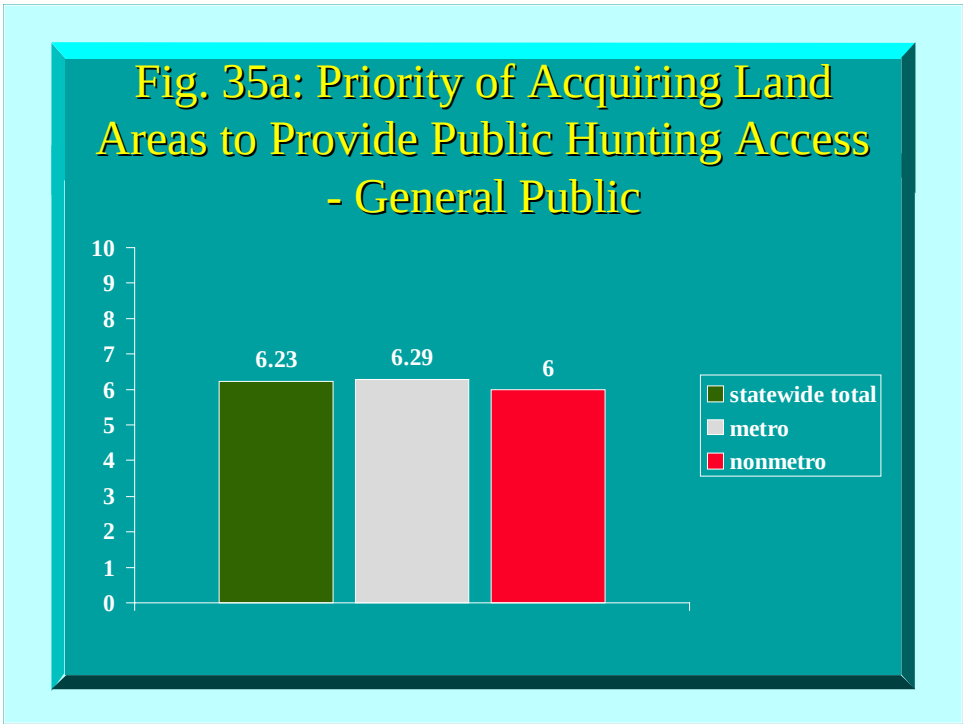


Fig. 35a: Priority of Acquiring Land Areas to Provide Public Hunting Access - General Public
10
9
8
7
6
5
4
3
2
1
0
6.23
6.29
6
statewide total
metro
nonmetro

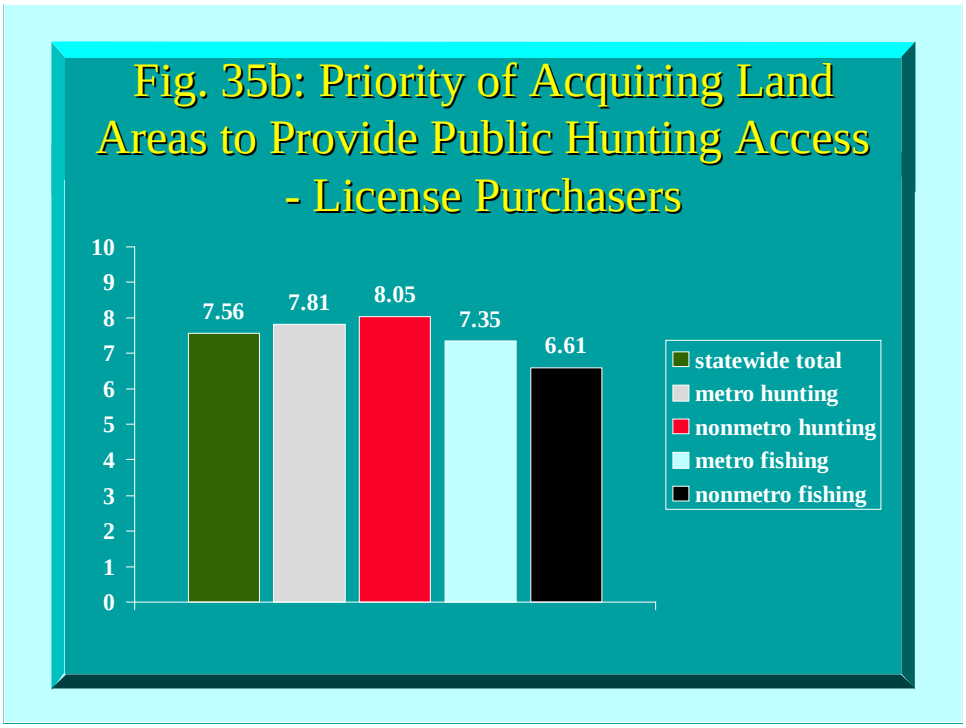


Fig. 35b: Priority of Acquiring Land Areas to Provide Public Hunting Access - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.56
7.81
8.05
7.35
6.61
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 35. Response distributions to question measuring attitudes about the priority of acquiring land areas to provide public hunting access, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	2.3	4.7	2.9	5.9	1.6	0.0	7.1	3.1
1	2.8	3.8	3.0	1.5	0.0	0.0	1.8	0.7
2	4.6	4.7	4.6	0.0	1.6	0.0	3.6	0.7
3	7.4	4.7	6.8	1.5	0.0	5.0	3.6	2.6
4	6.0	5.7	5.9	0.0	3.2	3.3	0.0	1.8
5	16.7	21.2	17.7	4.4	11.1	11.7	16.1	9.7
6	6.0	8.5	6.6	4.4	6.3	11.7	12.5	8.3
7	19.4	14.2	18.2	16.2	4.8	13.3	14.3	12.6
8	14.4	12.7	14.0	19.1	22.2	28.3	10.7	22.0
9	3.2	6.1	3.9	10.3	7.9	8.3	3.6	8.3
10 (very high priority)	17.1	13.7	16.3	36.8	41.3	18.3	26.8	30.1
Number of cases	216	212	938*	68	63	60	56	475*
Mean response	6.29	6.00	6.23	7.81	8.05	7.35	6.61	7.56
Median response	7.00	6.00	7.00	8.00	8.00	8.00	7.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

land areas that would be maintained in protected status with no hunting and fishing use are summarized in Figures 36a and 36b and Table 36. Among the general public this type of program received fairly high priority ratings (Figure 36a), with metropolitan-area residents somewhat more supportive (mean = 6.97) than nonmetro residents (mean = 6.26). Responses provided by hunting and fishing license purchasers were slightly lower overall (Figure 36b), with relatively high ratings provided by metropolitan-area fishing license purchasers (mean = 7.08) and more neutral ratings provided by nonmetro fishing license purchasers (mean = 5.65).

Figures 37a and 37b and Table 37 summarize responses to an item asking about the priority that should be placed on acquiring water rights to maintain sufficient water in rivers, streams or reservoirs to protect fish populations during dry periods. Overall, this program focus was rated as a very high priority among both the general public and license purchasers. For the combined statewide general public sample, the mean response value was approximately 7.9, with one-third of responses falling at the extreme "highest priority" level (10), and about two-thirds falling in the "high priority" (8-10) range. Responses among license purchasers revealed overwhelming support for this type of program. For the aggregated license purchaser sample the mean response value was 8.31, and only among nonmetropolitan fishing license purchasers (mean = 7.62) did the mean response value drop below 8.

Respondents also assigned generally high priority to land acquisition efforts that would secure land along the edges of rivers, streams or reservoirs to improve water quality and the quality of wetland habitat areas. As indicated in Figure 38a and Table 38, for the general public sample, support was highest among metropolitan-area residents (mean = 7.8), and only slightly lower among nonmetropolitan residents (mean = 7.44). Figure 38b indicates that license purchasers as a group (mean = 7.96) were slightly more supportive of this program focus than

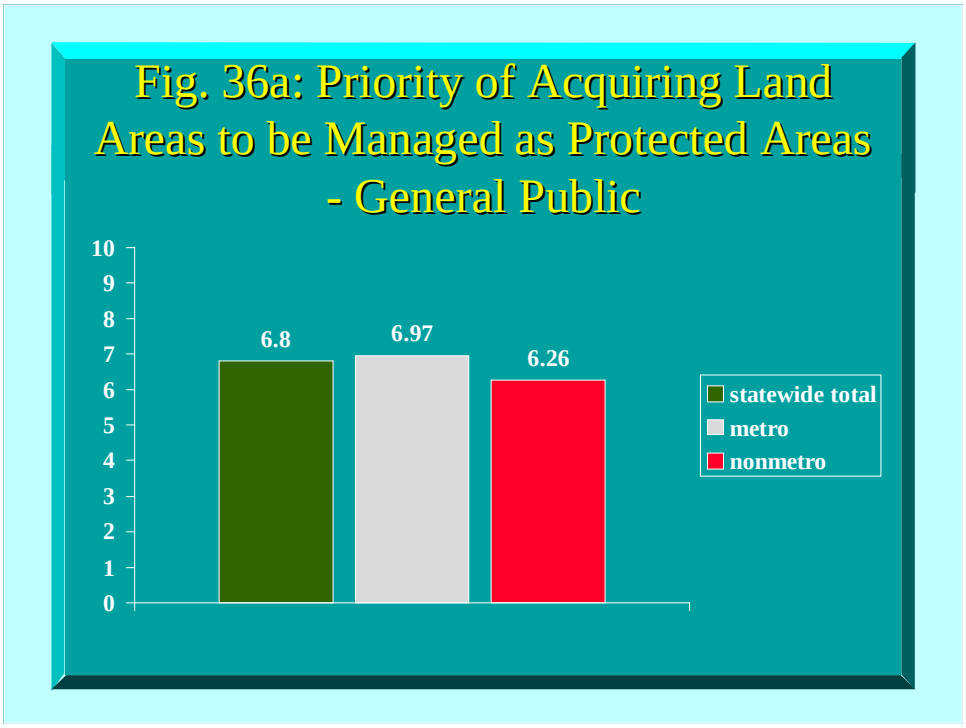


Fig. 36a: Priority of Acquiring Land Areas to be Managed as Protected Areas - General Public
10
9
8
7
6
5
4
3
2
1
0
6.8
6.97
6.26
statewide total
metro
nonmetro

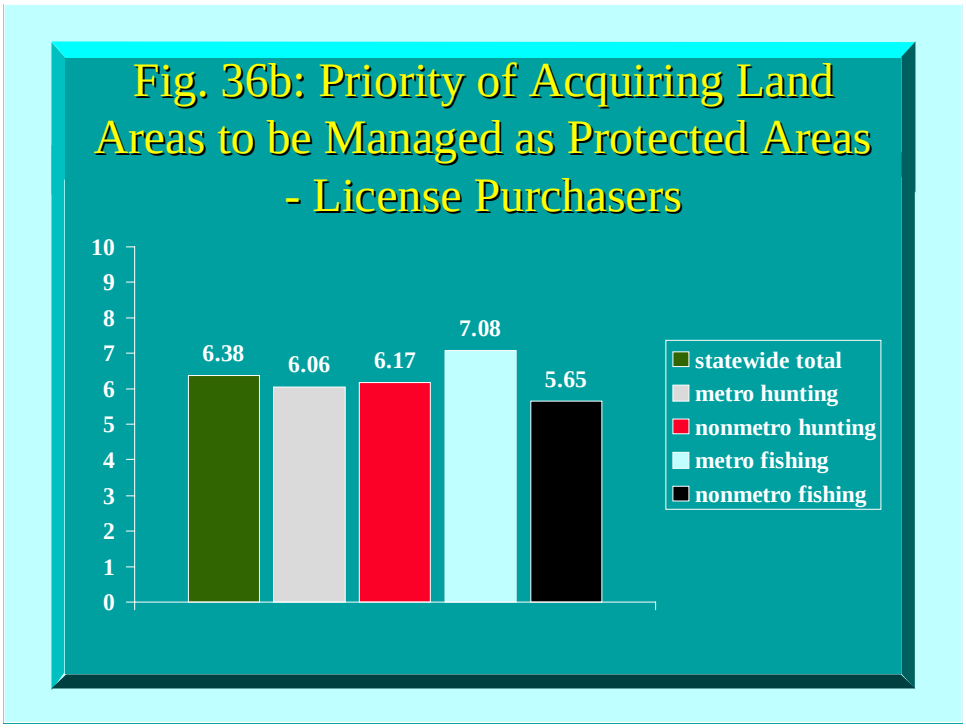


Fig. 36b: Priority of Acquiring Land Areas to be Managed as Protected Areas - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.38
6.06
6.17
7.08
5.65
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 36. Response distributions to question measuring attitudes about the priority of acquiring land areas to be managed as protected areas, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.3	4.7	3.7	13.0	11.1	0.0	14.0	8.3
1	1.0	1.4	1.1	2.9	0.0	0.0	1.8	1.2
2	2.4	2.8	2.5	8.8	6.3	0.0	5.3	3.9
3	2.4	8.0	3.7	1.4	3.2	6.8	3.5	3.9
4	2.4	5.2	3.0	1.4	6.3	1.7	3.5	2.8
5	17.2	23.1	18.6	15.9	15.9	15.3	15.8	15.7
6	9.1	5.2	8.2	5.8	4.8	13.6	10.5	8.8
7	14.8	12.7	14.3	13.0	7.9	16.9	10.5	13.0
8	19.1	12.7	17.7	10.1	17.5	22.0	17.5	16.6
9	5.7	4.2	5.4	10.1	3.2	8.5	3.5	7.3
10 (very high priority)	22.5	19.8	21.9	20.3	23.8	15.3	14.0	18.5
Number of cases	209	212	914*	69	63	59	57	475*
Mean response	6.97	6.26	6.80	6.06	6.17	7.08	5.65	6.38
Median response	7.00	6.00	7.00	7.00	7.00	7.00	6.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

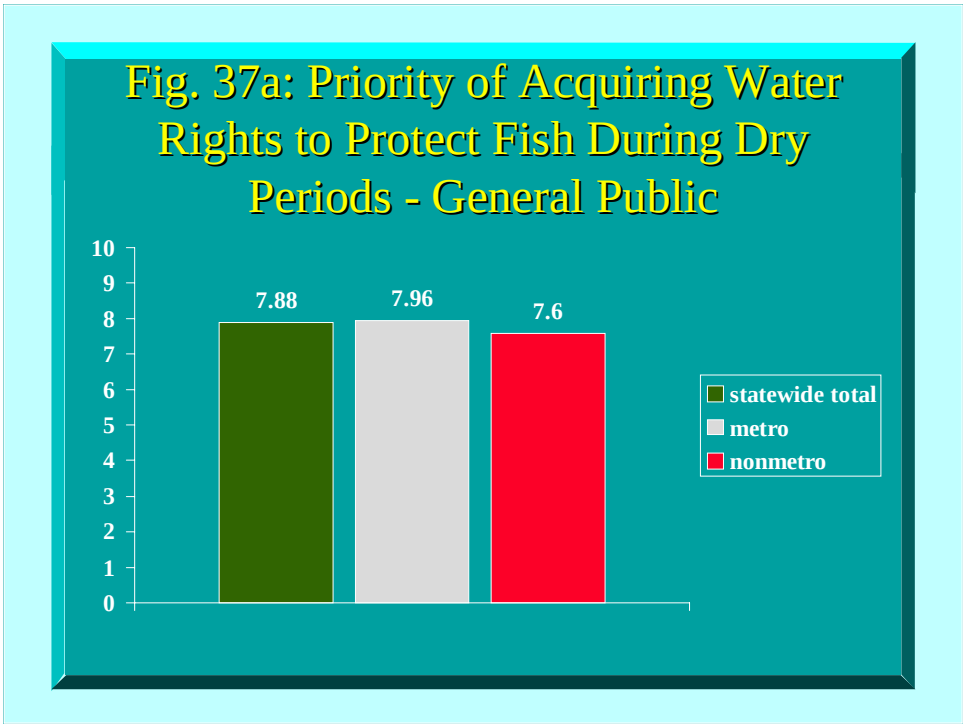


Fig. 37a: Priority of Acquiring Water Rights to Protect Fish During Dry Periods - General Public
10
9
8
7
6
5
4
3
2
1
0
7.88
7.96
7.6
statewide total
metro
nonmetro

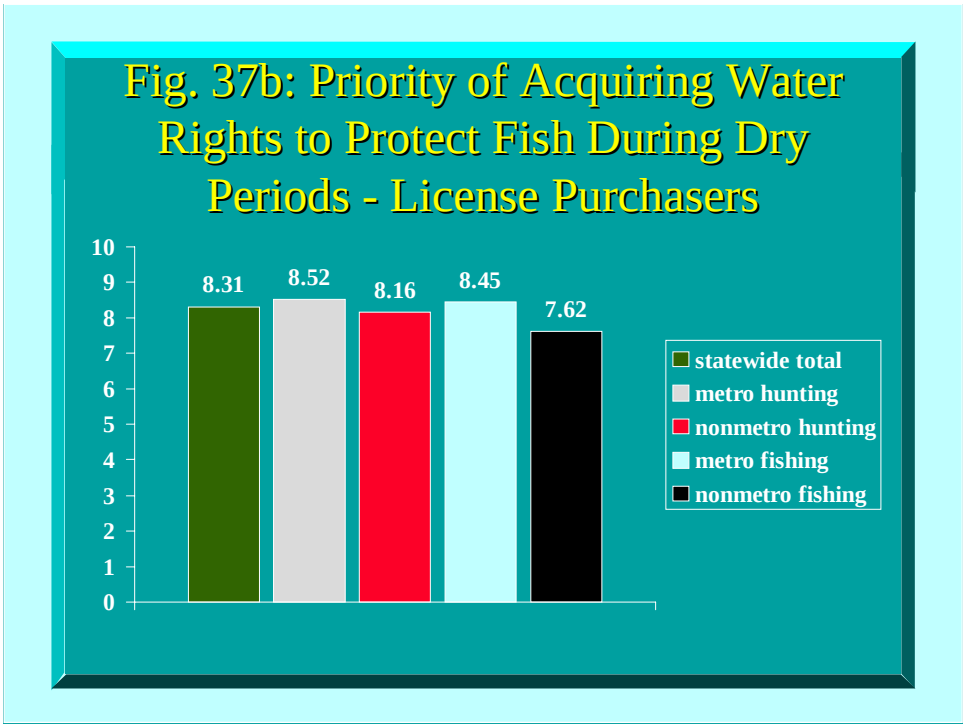


Fig. 37b: Priority of Acquiring Water Rights to Protect Fish During Dry Periods - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
8.31
8.52
8.16
8.45
7.62
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 37. Response distributions to question measuring attitudes about the priority of acquiring water rights to protect fish during dry periods, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	0.9	1.4	1.0	3.0	1.6	0.0	6.9	2.2
1	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0
2	1.4	1.4	1.4	0.0	1.6	0.0	0.0	0.0
3	1.4	2.3	1.6	0.0	0.0	0.0	1.7	0.2
4	1.8	3.3	2.2	0.0	1.6	0.0	1.7	0.5
5	9.2	8.9	9.1	3.0	8.2	6.7	8.6	6.0
6	7.3	7.5	7.4	4.5	3.3	3.3	1.7	3.5
7	10.1	17.3	11.7	9.0	9.8	10.0	15.5	10.3
8	25.2	19.6	24.0	20.9	26.2	33.3	19.0	26.1
9	7.3	9.3	7.8	16.4	8.2	11.7	12.1	12.6
10 (very high priority)	35.3	28.5	33.8	43.3	39.3	35.0	32.8	38.3
Number of cases	218	214	946*	67	61	60	58	471*
Mean response	7.96	7.60	7.88	8.52	8.16	8.45	7.62	8.31
Median response	8.00	8.00	8.00	9.00	8.00	8.00	8.00	9.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

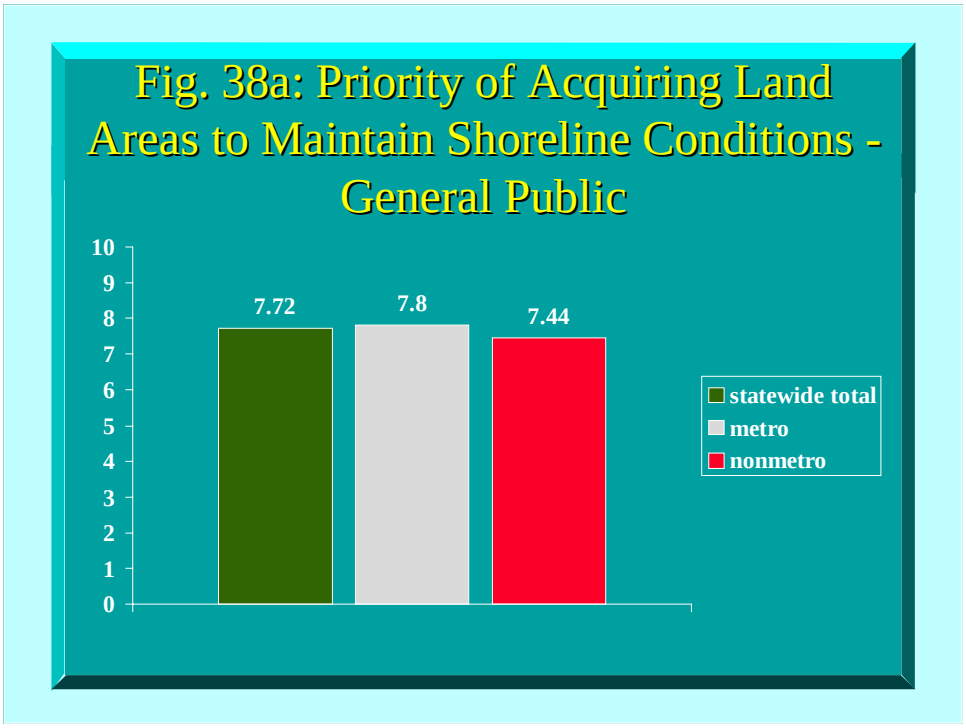


Fig. 38a: Priority of Acquiring Land Areas to Maintain Shoreline Conditions - General Public
10
9
8
7
6
5
4
3
2
1
0
7.72
7.8
7.44
statewide total
metro
nonmetro

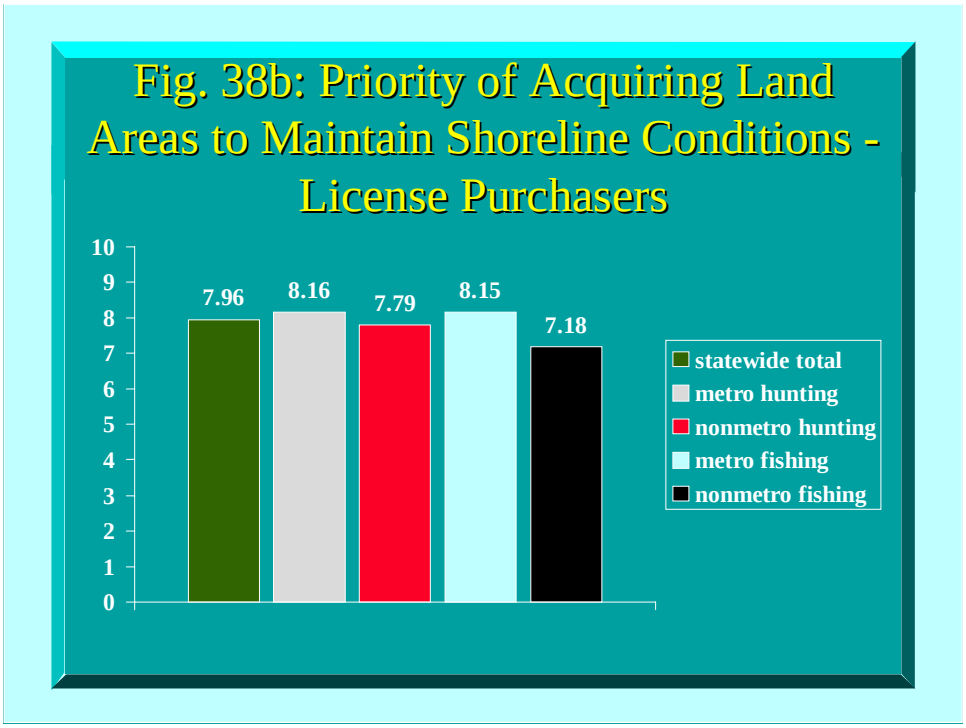


Fig. 38b: Priority of Acquiring Land Areas to Maintain Shoreline Conditions - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.96
8.16
7.79
8.15
7.18
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 38. Response distributions to question measuring attitudes about the priority of acquiring land areas to maintain shoreline conditions, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	0.5	1.9	0.8	5.8	1.6	1.7	7.0	3.7
1	1.8	0.0	1.4	0.0	0.0	0.0	0.0	0.0
2	1.4	0.5	1.2	0.0	1.6	0.0	1.8	0.5
3	1.8	3.3	2.2	0.0	1.6	1.7	1.8	1.1
4	1.8	2.4	1.9	0.0	1.6	3.3	1.8	1.7
5	7.8	12.7	8.9	5.8	16.4	3.3	12.3	7.8
6	7.8	10.8	8.5	2.9	6.6	6.7	7.0	5.4
7	13.7	14.2	13.8	13.0	4.9	10.0	15.8	10.7
8	20.1	17.9	19.6	18.8	19.7	25.0	15.8	20.8
9	13.2	10.4	12.6	8.7	8.2	13.3	7.0	10.0
10 (very high priority)	30.1	25.9	29.2	44.9	37.7	35.0	29.8	38.2
Number of cases	219	212	948*	69	61	60	57	475*
Mean response	7.80	7.44	7.72	8.16	7.79	8.15	7.18	7.96
Median response	8.00	8.00	8.00	9.00	8.00	8.00	8.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

were members of the public at large, with metropolitan-area hunting and fishing license purchasers slightly more positive than their nonmetropolitan counterparts.

Finally, the data presented in Figures 39a and 39b and Table 39 reveal that acquisition of lands to provide for non-game habitat was rated as a moderately high priority by both the public at large and license purchasers. As with most of the other items in this series, metropolitan area residents were slightly more favorable (mean = 7.1) than were nonmetropolitan residents (mean = 6.55). License purchasers were also moderately supportive, with the highest level of support expressed by metropolitan-area fishing license buyers (mean = 7.08).

Nonconsumptive Wildlife Activities and Priorities

In recent decades, wildlife management agencies across the country have devoted increased attention to the use patterns and management preferences of constituencies who have special interests in wildlife involving activities other than hunting or fishing. Increased levels of interest and participation in activities such as wildlife feeding and observation have fostered new programs and policies directed at meeting the needs of a constituency with primary interest in "nonconsumptive" wildlife-related activities.

Wildlife feeding. Respondents to the 1998 Utah wildlife survey indicated substantial involvement in activities involving nonconsumptive or appreciative wildlife-related activities. Survey responses indicated that about 44% of adult Utahns statewide had fed wildlife around their home during the past year; participation in wildlife feeding was reported at similar levels by both metropolitan (44.7%) and nonmetropolitan (42.2%) residents of the state. Hunting and fishing license purchasers as a group reported similar levels of participation in wildlife feeding (47.5%), with the proportion reporting such activity ranging from a low of 44.1% among nonmetropolitan

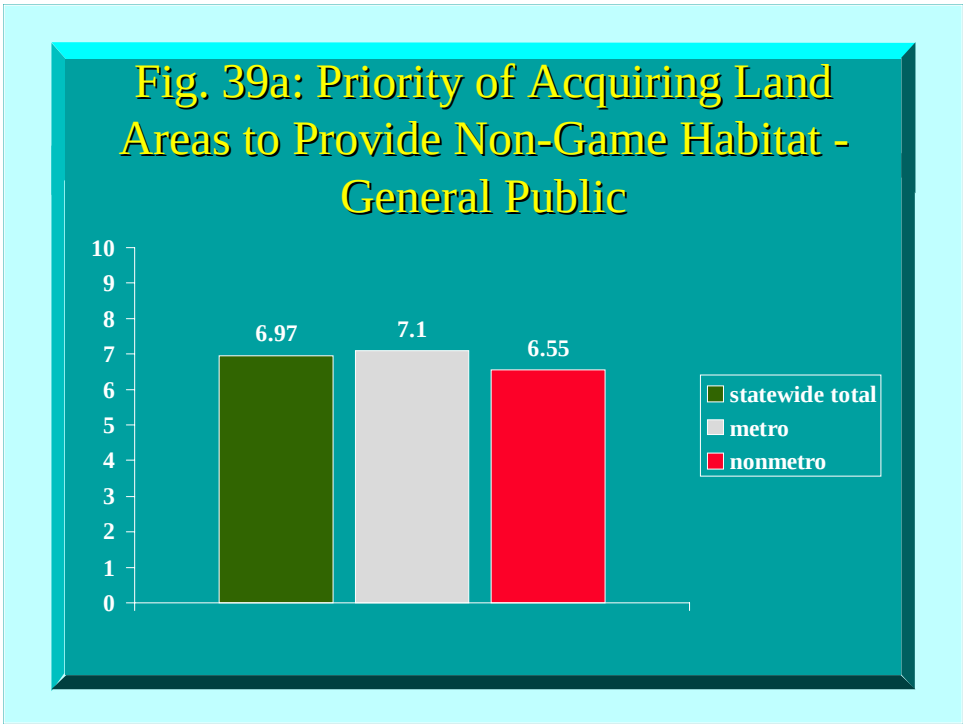


Fig. 39a: Priority of Acquiring Land Areas to Provide Non-Game Habitat - General Public
10
9
8
7
6
5
4
3
2
1
0
6.97
7.1
6.55
statewide total
metro
nonmetro

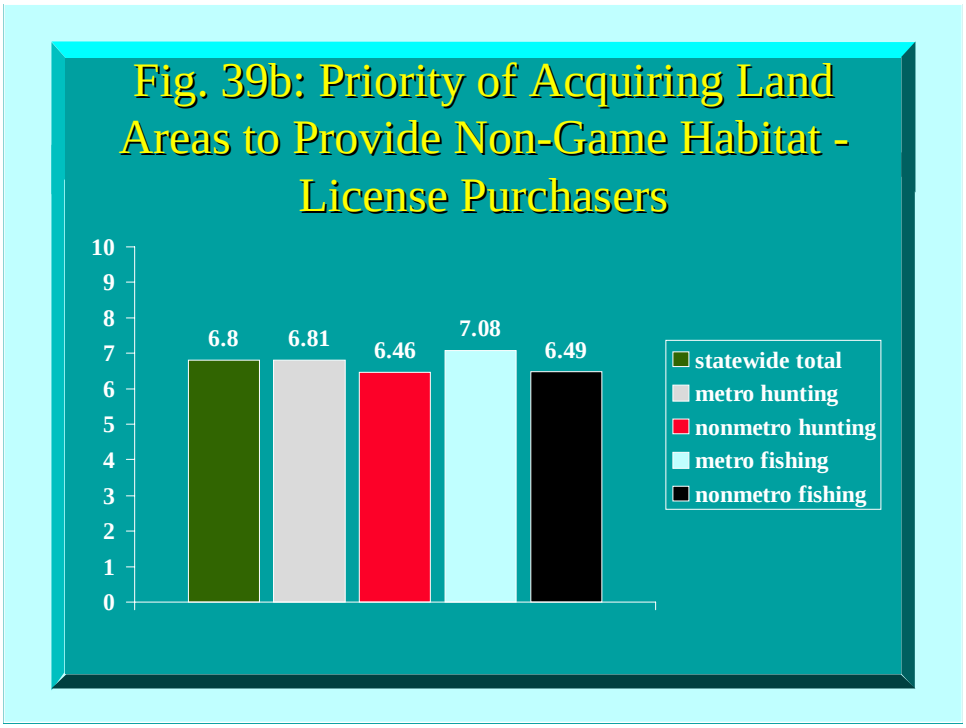


Fig. 39b: Priority of Acquiring Land Areas to Provide Non-Game Habitat - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.8
6.81
6.46
7.08
6.49
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 39. Response distributions to question measuring attitudes about the priority of acquiring land areas to provide habitat for non-game animals, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	1.4	3.3	1.8	7.4	4.9	1.7	7.3	4.9
1	0.9	1.4	1.0	1.5	0.0	0.0	1.8	0.7
2	2.3	1.9	2.2	1.5	1.6	3.3	3.6	2.4
3	4.2	5.2	4.4	0.0	3.3	1.7	1.8	1.5
4	3.7	6.7	4.4	8.8	4.9	5.0	7.3	6.5
5	13.4	18.1	14.5	14.7	23.0	6.7	14.5	13.5
6	11.1	9.0	10.6	1.5	11.5	11.7	9.1	7.9
7	15.3	16.2	15.5	14.7	11.5	16.7	12.7	14.5
8	15.3	12.9	14.7	16.2	21.3	33.3	9.1	22.4
9	10.2	5.7	9.2	11.8	1.6	10.0	10.9	9.0
10 (very high priority)	22.2	19.5	21.6	22.1	16.4	10.0	21.8	16.7
Number of cases	216	210	936*	68	61	60	55	471*
Mean response	7.10	6.55	6.97	6.81	6.46	7.08	6.49	6.80
Median response	7.00	7.00	7.00	7.50	7.00	8.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

fishing license purchasers to a high of 50.8% among metropolitan-area hunting license purchasers.

Wildlife habitat plantings. About 30% of all Utahns reported that they maintained natural habitat areas or vegetation plantings around their homes to benefit wildlife, with virtually identical levels of participation in such activities reported by residents of metropolitan and nonmetropolitan areas. A slightly higher proportion of license purchasers (35.8%) reported such activity, with metropolitan-area hunting license buyers reporting the highest levels of involvement (42%) and nonmetropolitan hunting license buyers reporting the lowest participation (29.8%) in such activities.

Wildlife observation outings. When asked whether during the past year they had taken part in trips or outings with the specific purpose of observing, photographing, sketching or painting wildlife or fish, a substantial proportion of Utahns indicated participation in such activities. Data from the aggregated statewide general public sample indicate that about 44% of all adults in the state engaged in such activities in the preceding year, with nonmetropolitan residents being slightly more likely to do so (49%) than metropolitan-area residents (43%). License purchasers as a group were much more likely to report engaging in these types of wildlife observation trips (63% for the aggregated statewide sample), with the lowest participation among metro (57.1%) and nonmetro (57.5%) fishing license buyers, and higher participation among metro (70.6%) and nonmetro (64.8%) hunting license buyers.

For the statewide general public sample most respondents who indicated that they had taken wildlife observation trips reported spending either 3-5 days (31.2%) or 6-15 days (33.6%) engaged in such trips during the prior year, although a substantial proportion (21.7%) reported spending 16 or more days engaged in such activities. For the aggregated license purchasers sample about 26% reported spending 3-5 days on such trips, with 36% reporting 6-15 days and

31% reporting 16 or more days. When asked to indicate their overall level of satisfaction with these types of trips, respondents were generally positive about their experiences, as indicated in Figures 40a and 40b and Table 40. The mean response values for the general public samples approached 7 on the 0 (extremely poor) to 10 (extremely good) response scale, and ranged from 6.97 to 7.34 across the various license purchaser categories.

Nonconsumptive wildlife management priorities. Six items in the survey questionnaire asked respondents to rate the amount of priority that DWR should place on various types of programs addressing nonconsumptive wildlife interests and activities. Figures 41a and 41b and Table 41 summarize responses to the first of these items, which asked how much priority should be placed on development of "watchable wildlife" sites or trails in city parks or open space areas where people can observe and learn about wildlife living in urban and suburban areas. Overall, this was rated as a relatively high priority by the Utah general public at large (mean = 6.99), with metropolitan area residents reporting slightly higher support than residents of nonmetropolitan areas. License purchasers as a group were also fairly supportive (mean = 6.71), with metropolitan-area hunting and fishing licensees expressing higher support than their nonmetropolitan counterparts.

Figures 42a and 42b and Table 42 report the priority ratings that respondents provided for an item involving development of "watchable wildlife" sites or trails in undeveloped areas where people can observe and learn about wildlife in their natural habitats. Response patterns were generally similar to those described for the preceding item: both the statewide general public (mean = 7.03) and license purchasers (mean = 6.73) rated this as a fairly high priority, with metropolitan-area residents and license purchasers expressing somewhat higher support than was the case among residents and licensees from nonmetropolitan portions of Utah.

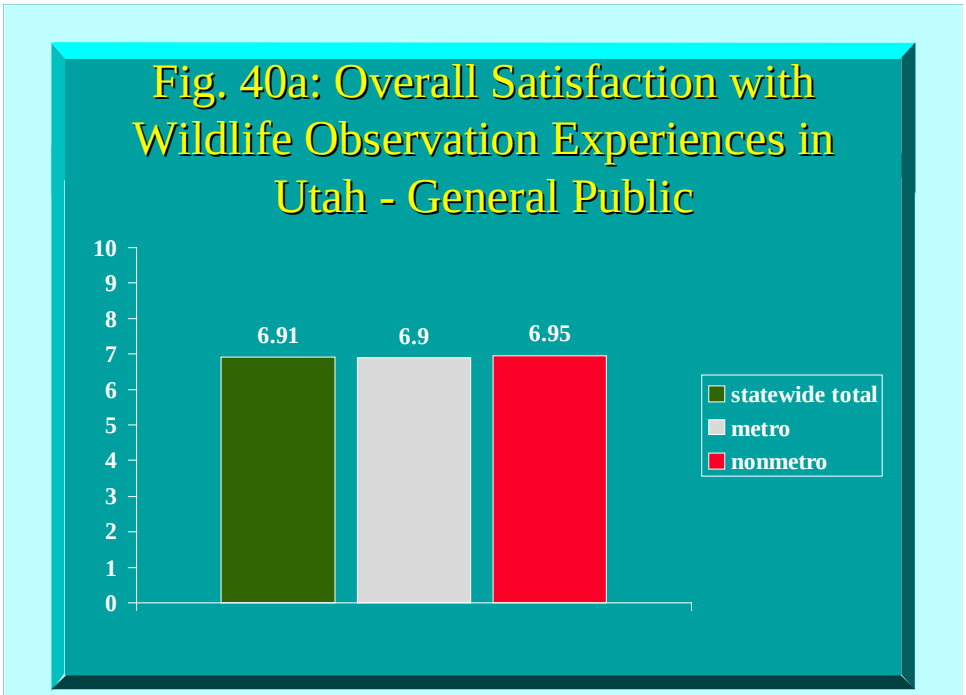


Fig. 40a: Overall Satisfaction with Wildlife Observation Experiences in Utah - General Public
10
9
8
7
6
5
4
3
2
1
0
6.91
6.9
6.95
statewide total
metro
nonmetro

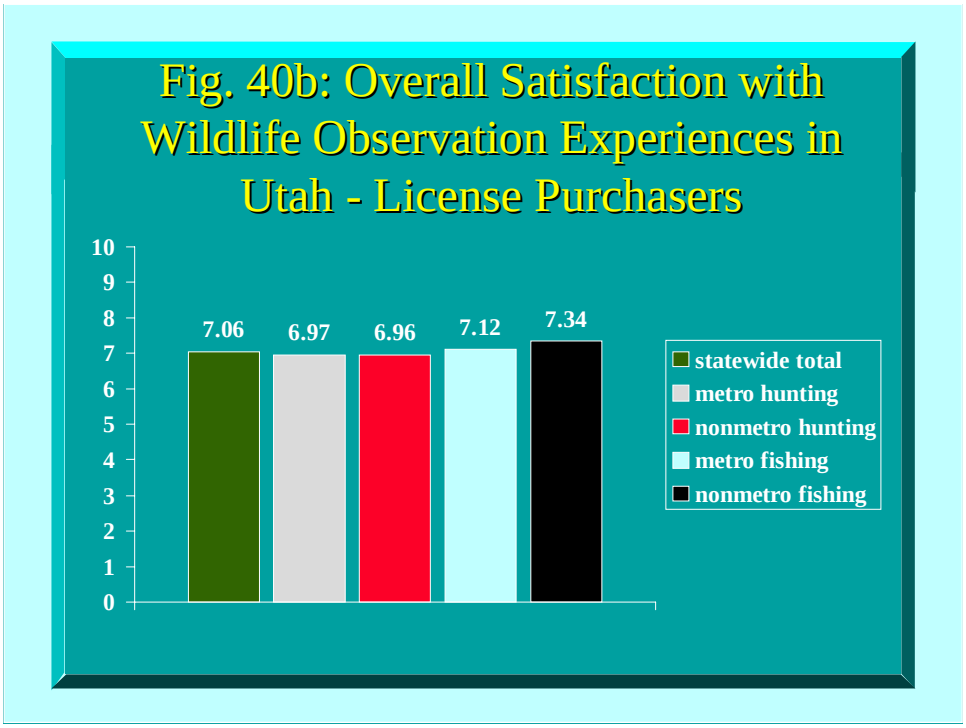


Fig. 40b: Overall Satisfaction with Wildlife Observation Experiences in Utah - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.06
6.97
6.96
7.12
7.34
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 40. Response distributions to question measuring attitudes about the satisfaction of wildlife observation trips in Utah, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (extremely poor)	6.0	3.2	5.3	2.2	2.5	2.9	0.0	2.2
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.0	1.4	1.1	0.0	1.2	0.0	1.4	0.4
3	1.0	1.8	1.2	2.2	2.5	2.9	1.4	2.4
4	2.0	5.9	3.0	4.4	3.7	2.9	4.1	3.8
5	10.0	11.4	10.3	14.4	6.2	7.2	11.0	10.0
6	14.4	10.0	13.3	11.1	18.5	17.4	6.8	14.2
7	19.9	18.6	19.6	21.1	24.7	20.3	23.3	21.9
8	23.4	25.9	24.0	24.4	22.2	21.7	31.5	24.0
9	10.0	9.1	9.7	10.0	6.2	11.6	5.5	9.1
10 (extremely good)	12.4	12.7	12.5	10.0	12.3	13.0	15.1	12.1
Number of cases	201	220	895*	90	81	69	73	595*
Mean response	6.90	6.95	6.91	6.97	6.96	7.12	7.34	7.06
Median response	7.00	7.00	7.00	7.00	7.00	7.00	8.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

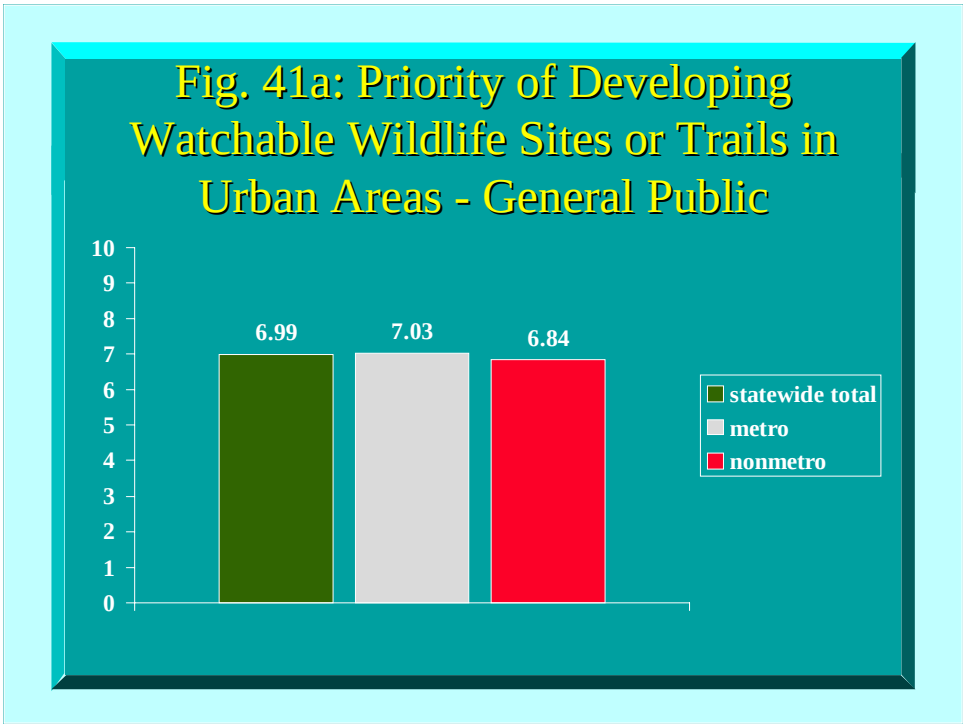


Fig. 41a: Priority of Developing Watchable Wildlife Sites or Trails in Urban Areas - General Public
10
9
8
7
6
5
4
3
2
1
0
6.99
7.03
6.84
statewide total
metro
nonmetro

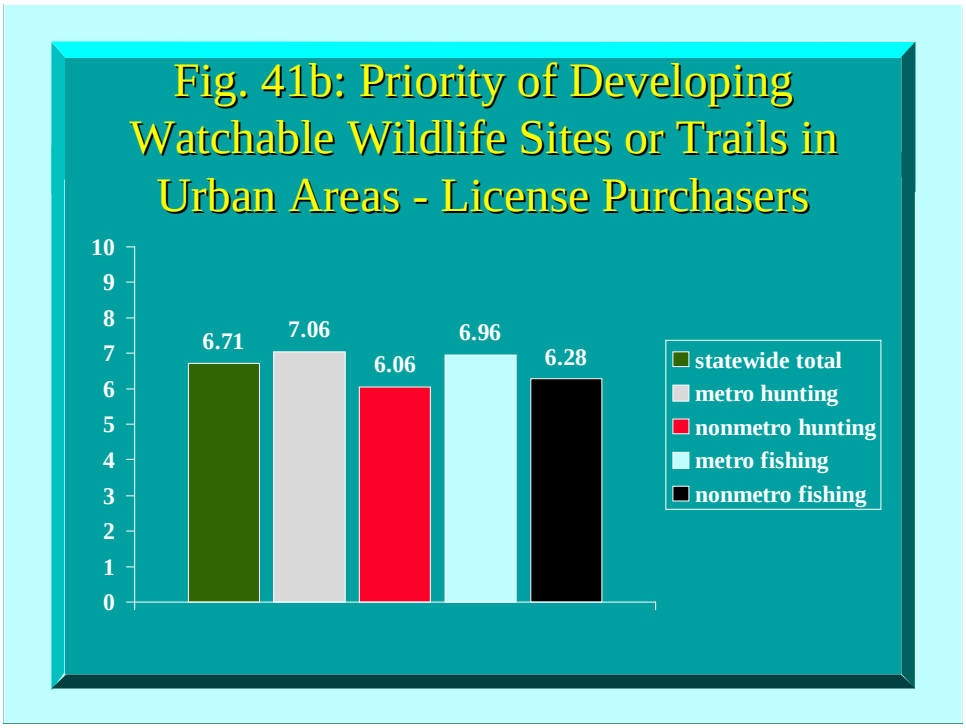


Fig. 41b: Priority of Developing Watchable Wildlife Sites or Trails in Urban Areas - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.71
7.06
6.06
6.96
6.28
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 41. Response distributions to question measuring attitudes about the priority of developing "watchable wildlife" sites or trails in urban areas, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.3	3.0	3.3	1.6	5.6	3.4	5.6	3.6
1	0.2	0.7	0.3	0.8	0.8	0.0	1.6	0.6
2	2.2	1.6	2.1	0.8	0.8	2.5	4.0	1.8
3	2.4	4.6	2.9	3.2	7.3	0.8	2.4	3.1
4	1.8	4.1	2.3	3.2	4.8	4.2	6.5	4.3
5	14.9	15.7	15.1	17.5	24.2	10.9	15.3	16.3
6	11.6	10.5	11.3	14.3	12.9	15.1	10.5	13.8
7	15.6	16.9	15.9	15.1	11.3	15.1	16.9	14.6
8	20.3	17.5	19.7	14.3	16.9	26.1	19.4	19.6
9	7.3	5.0	6.8	5.6	3.2	6.7	4.8	5.4
10 (very high priority)	20.3	20.5	20.3	23.8	12.1	15.1	12.9	16.9
Number of cases	449	439	1948*	126	124	119	124	932*
Mean response	7.03	6.84	6.99	7.06	6.06	6.96	6.28	6.71
Median response	7.00	7.00	7.00	7.00	6.00	7.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

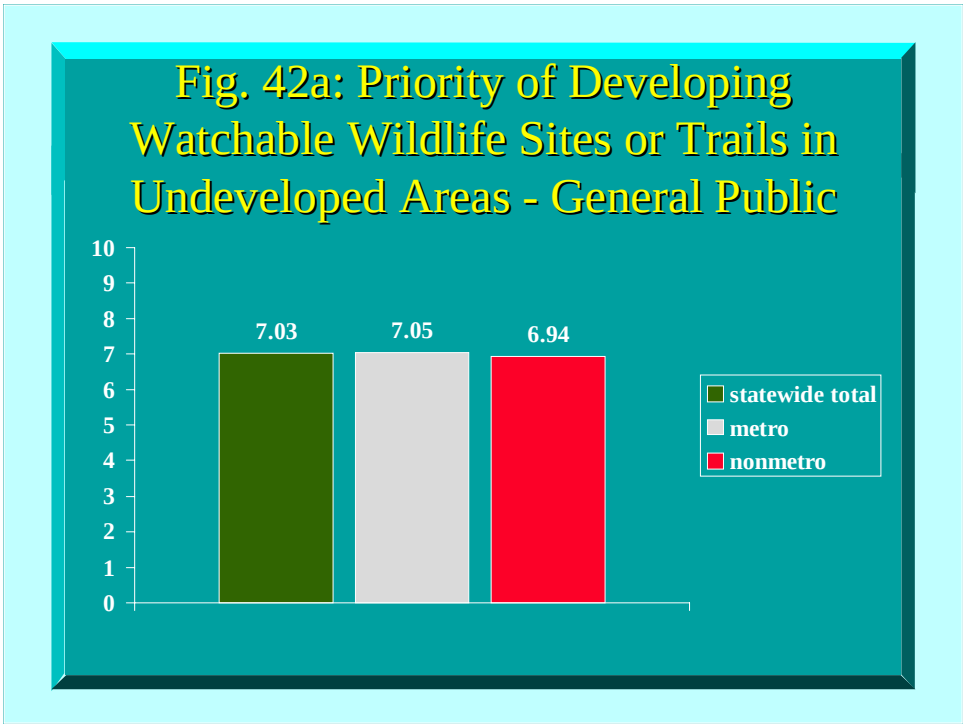


Fig. 42a: Priority of Developing Watchable Wildlife Sites or Trails in Undeveloped Areas - General Public
10
9
8
7
6
5
4
3
2
1
0
7.03
7.05
6.94
statewide total
metro
nonmetro

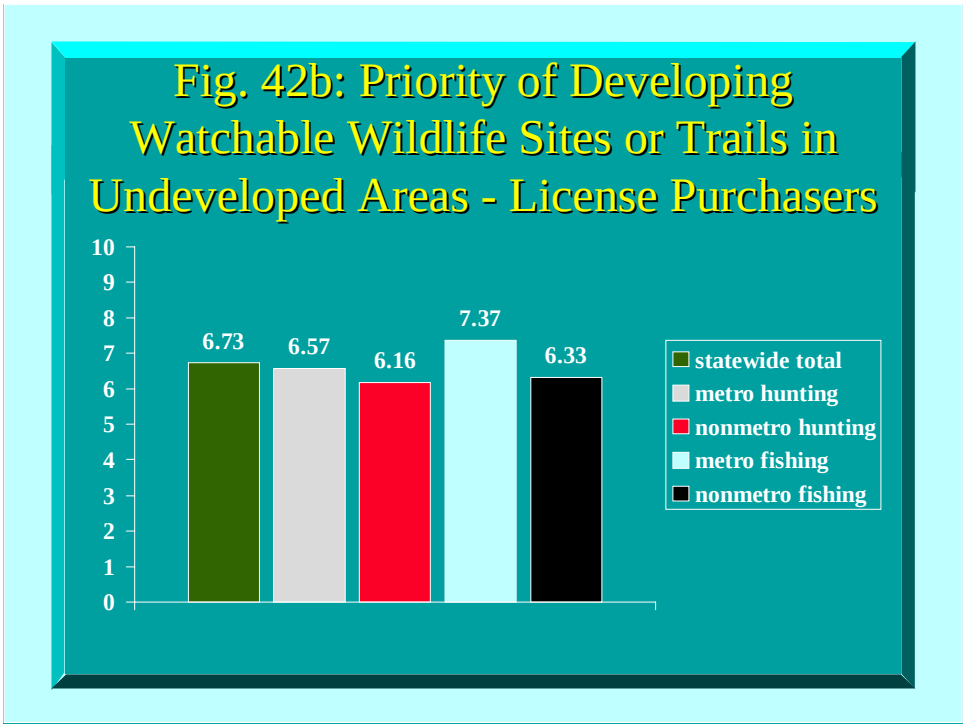


Fig. 42b: Priority of Developing Watchable Wildlife Sites or Trails in Undeveloped Areas - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.73
6.57
6.16
7.37
6.33
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 42. Response distributions to question measuring attitudes about the priority of developing "watchable wildlife" sites or trails in undeveloped areas, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.3	4.1	3.5	5.5	8.0	4.2	7.1	5.8
1	0.4	0.5	0.4	1.6	0.8	0.0	2.4	1.0
2	2.4	2.5	2.5	3.1	2.4	0.0	7.1	2.4
3	3.8	2.7	3.5	5.5	4.8	1.7	2.4	3.6
4	2.4	4.3	2.9	4.7	3.2	4.2	4.8	4.2
5	12.0	12.8	12.2	12.6	18.4	16.7	10.3	11.4
6	8.6	10.3	9.0	8.7	10.4	11.8	6.3	9.8
7	16.6	15.5	16.4	14.2	16.8	16.0	16.7	15.7
8	22.2	18.3	21.3	16.5	19.2	24.4	17.5	19.9
9	8.2	7.8	8.1	7.9	2.4	6.7	9.5	6.6
10 (very high priority)	20.0	21.2	20.2	19.7	13.6	24.4	15.9	19.6
Number of cases	451	438	1953*	127	125	119	126	938*
Mean response	7.05	6.94	7.03	6.57	6.16	7.37	6.33	6.73
Median response	8.00	7.00	7.00	7.00	7.00	8.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Relatively high priority ratings were also assigned to having educational workshops presented by State wildlife specialists where people could learn more about particular Utah wildlife species and their habitats (Figures 43a and 43b, Table 43). Average response values of metropolitan (6.91) and nonmetropolitan (6.89) residents were nearly identical. As a group, the responses of license purchasers were very similar to those obtained for the general public, with metropolitan-area hunting and fishing license purchasers reporting somewhat higher support levels than was the case among nonmetropolitan-area license buyers.

Figures 44a and 44b and Table 44 summarize responses to an item asking about the priority that should be assigned to development of nature centers near cities where people can observe wildlife in natural settings and take part in educational programs about Utah wildlife. The response patterns once again reveal moderately high support for such programs, as indicated by the mean response values for both the aggregated statewide general public sample (7.02) and for the combined license purchasers sample (6.82). Metropolitan-area residents as well as hunting and fishing license purchasers were slightly more favorable in responding to this type of program than were their nonmetropolitan counterparts.

Responses to an item asking about the priority that should be assigned to organization of scheduled events such as “Bald Eagle Day”, that allow people to take part in organized trips to observe and learn about wildlife, mirrored those reported for the other items in this section. As indicated in Figures 45a and 45b and Table 45, mean response values were generally at or slightly below 7 for all of the sample groups, with a slight tendency for nonmetropolitan-area hunting and fishing license buyers to report lower support than the other sample segments.

The final item in this segment of the survey asked respondents to assign a priority rating to the development of new radio and television programs to help the public develop a better

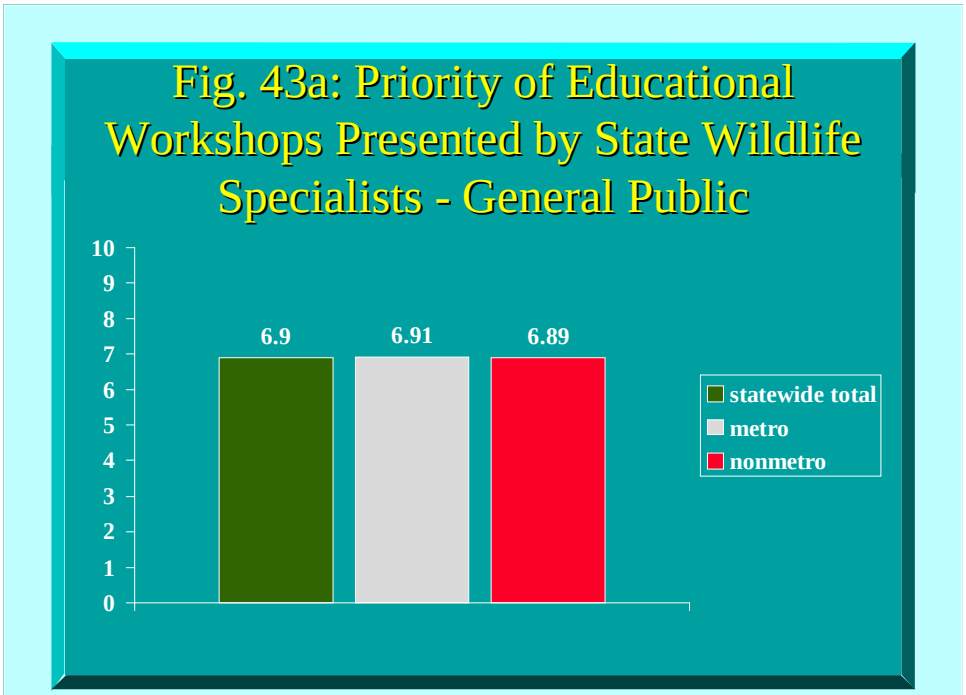


Fig. 43a: Priority of Educational Workshops Presented by State Wildlife Specialists - General Public
10
9
8
7
6
5
4
3
2
1
0
6.9
6.91
6.89
statewide total
metro
nonmetro

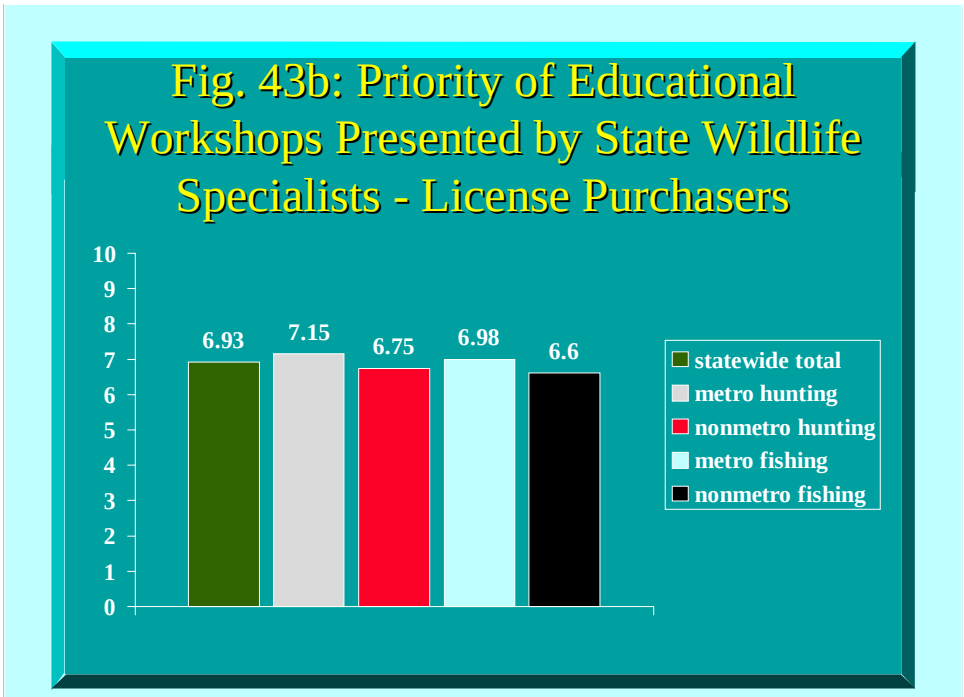


Fig. 43b: Priority of Educational Workshops Presented by State Wildlife Specialists - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.93
7.15
6.75
6.98
6.6
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 43. Response distributions to question measuring attitudes about the priority of educational workshops presented by state wildlife specialists, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.1	3.4	3.2	2.4	4.8	3.4	3.2	3.3
1	0.2	0.2	0.2	0.0	0.0	0.8	0.8	0.4
2	1.6	1.8	1.6	1.6	2.4	1.7	4.0	2.1
3	2.7	2.7	2.7	3.1	0.8	4.2	0.0	2.6
4	4.0	5.0	4.2	2.4	3.2	2.5	4.8	2.9
5	14.4	16.4	14.9	14.2	23.4	12.6	21.4	16.5
6	13.3	11.4	12.9	9.4	7.3	14.3	9.5	10.7
7	16.9	13.9	16.2	20.5	12.1	12.6	18.3	15.7
8	19.1	18.7	19.0	19.7	20.2	16.8	19.0	18.7
9	6.7	4.6	6.2	3.1	9.7	10.9	3.2	7.2
10 (very high priority)	18.0	21.9	18.9	23.6	16.1	20.2	15.9	19.8
Number of cases	450	439	1951*	127	124	119	126	937*
Mean response	6.91	6.89	6.90	7.15	6.75	6.98	6.60	6.93
Median response	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

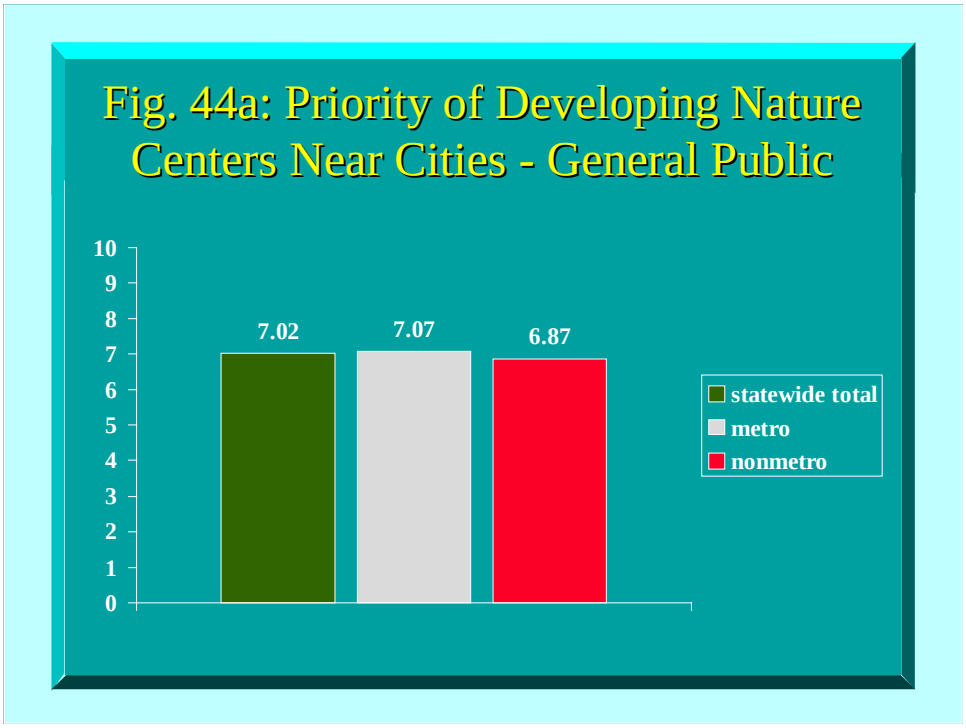


Fig. 44a: Priority of Developing Nature Centers Near Cities - General Public
10
9
8
7
6
5
4
3
2
1
0
7.02
7.07
6.87
statewide total
metro
nonmetro

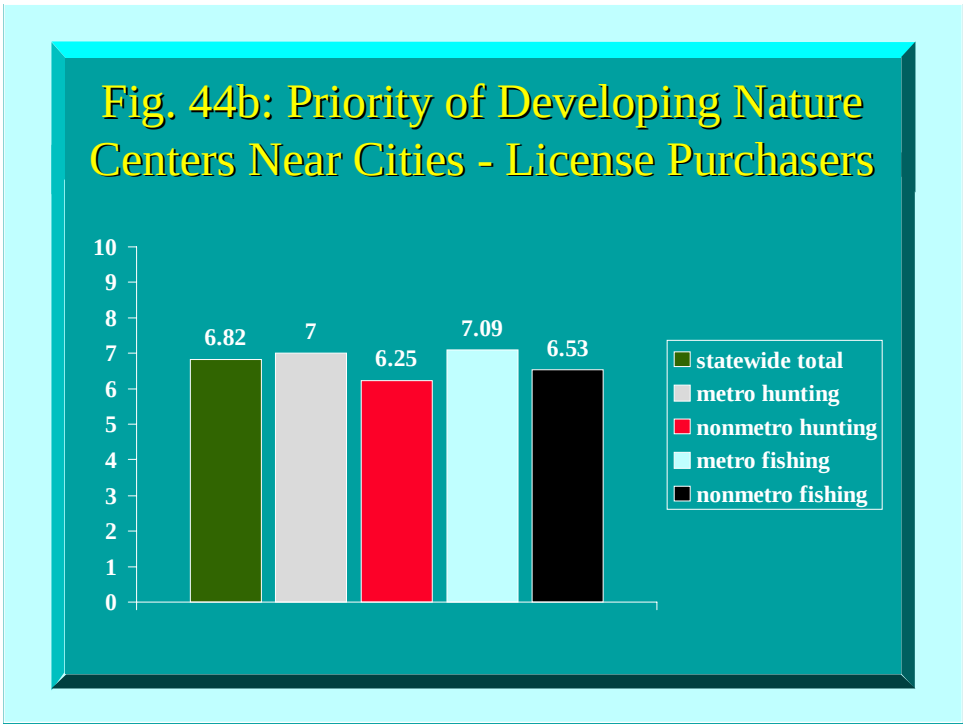


Fig. 44b: Priority of Developing Nature Centers Near Cities - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.82
7
6.25
7.09
6.53
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 44. Response distributions to question measuring attitudes about the priority of developing nature centers near cities, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.5	4.3	3.7	3.1	5.6	4.2	4.8	4.2
1	0.0	0.5	0.1	0.8	1.6	0.8	1.6	1.1
2	2.6	2.1	2.5	3.1	3.2	0.8	4.8	2.6
3	2.2	3.2	2.4	3.1	4.0	0.8	0.8	2.2
4	3.8	4.3	3.9	3.1	4.0	5.8	5.6	4.6
5	13.7	13.9	13.7	11.8	16.9	9.2	17.6	12.7
6	9.1	7.5	8.7	8.7	12.1	15.0	9.6	12.7
7	17.7	17.8	17.7	21.3	16.9	12.5	12.8	16.2
8	16.3	21.9	17.6	17.3	19.4	20.0	20.0	19.0
9	8.4	4.8	7.6	3.1	3.2	10.8	2.4	5.8
10 (very high priority)	22.7	19.8	22.1	24.4	12.9	20.0	20.0	19.9
Number of cases	453	439	1961*	127	124	120	125	939*
Mean response	7.07	6.87	7.02	7.00	6.25	7.09	6.53	6.82
Median response	7.00	7.00	7.00	7.00	7.00	8.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

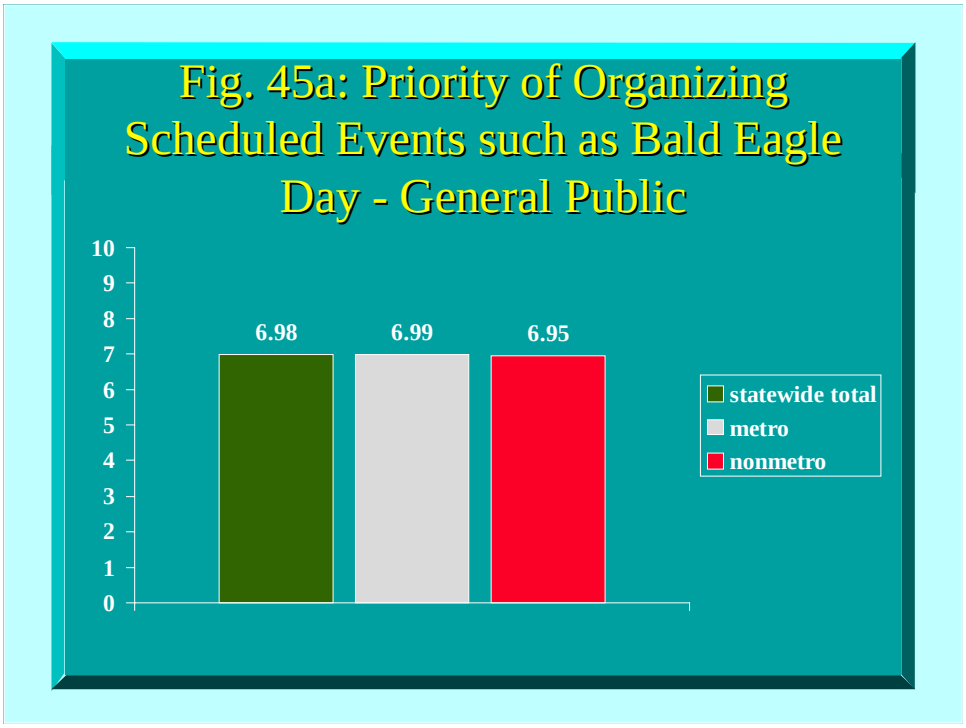


Fig. 45a: Priority of Organizing Scheduled Events such as Bald Eagle Day - General Public
10
9
8
7
6
5
4
3
2
1
0
6.98
6.99
6.95
statewide total
metro
nonmetro

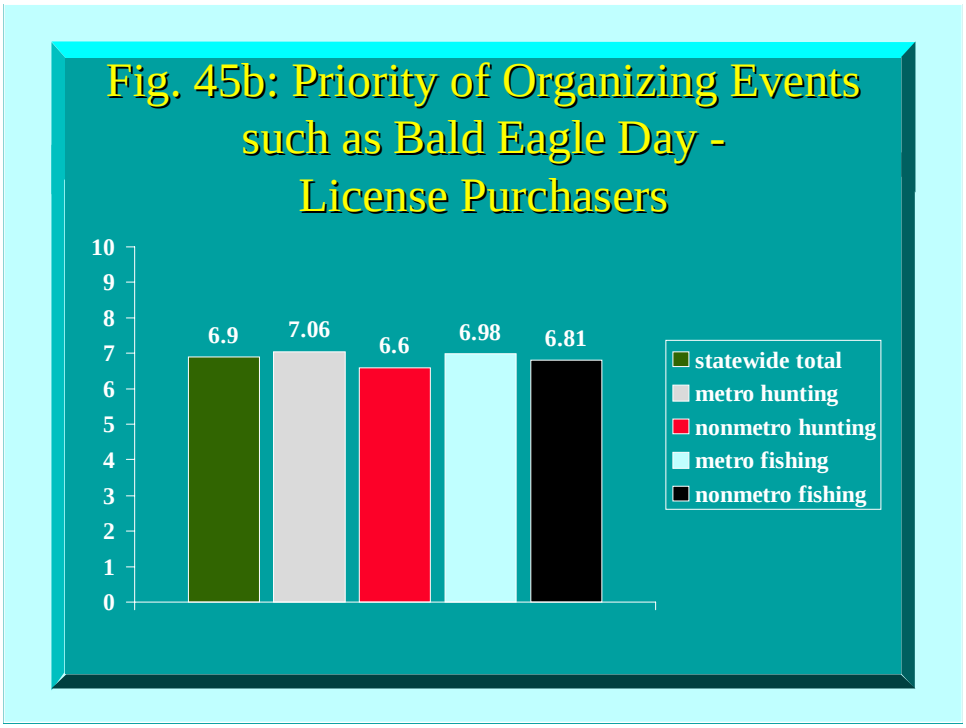


Fig. 45b: Priority of Organizing Events such as Bald Eagle Day - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.9
7.06
6.6
6.98
6.81
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 45. Response distributions to question measuring attitudes about the priority of organizing scheduled events such as "Bald Eagle Day", general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.3	2.9	3.2	3.2	4.0	5.0	4.7	4.2
1	0.7	0.9	0.7	0.0	0.8	0.0	2.4	0.5
2	2.7	1.1	2.3	4.8	1.6	0.0	2.4	2.1
3	3.1	2.5	3.0	2.4	4.0	3.3	2.4	3.0
4	3.8	5.9	4.2	3.2	4.0	6.6	3.1	4.6
5	12.6	17.2	13.6	10.3	22.4	10.7	13.4	13.4
6	11.1	9.7	10.8	11.9	7.2	12.4	10.2	10.9
7	14.6	12.2	14.1	17.5	13.6	11.6	17.3	14.6
8	19.2	19.0	19.2	15.9	21.6	21.5	15.0	18.9
9	6.4	6.1	6.3	5.6	3.2	9.1	6.3	6.4
10 (very high priority)	22.6	22.4	22.5	25.4	17.6	19.8	22.8	21.5
Number of cases	452	442	1961*	126	125	121	127	943*
Mean response	6.99	6.95	6.98	7.06	6.60	6.98	6.81	6.90
Median response	7.00	7.00	7.00	7.00	7.00	8.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

understanding of Utah's fish and wildlife resources. As indicated in Figures 46a and 46b and Table 46, this type of program was rated as a slightly higher priority overall than was the case for the other items in this series. Among the public at large, the statewide mean response was 7.12, with essentially no difference between the metropolitan and nonmetropolitan response patterns. Even higher support was evident among license buyers, with metropolitan-area hunting (mean = 7.82) and fishing (mean = 7.46) license purchasers expressing an especially high level of enthusiasm for the development of such programs.

Hunting and Game Management Issues

General Big Game Hunting and Management Issues

Considering the Utah public as a whole, survey results indicate that 18.5% of all adult Utahns report having had a permit to hunt one or more big game species in Utah during the preceding three years. Surprisingly, metropolitan area residents were only slightly less likely to report having had a big game hunting tag (18%) than were nonmetropolitan residents (20.2%). Not surprisingly, a substantially larger proportion (65.6%) of the combined sample of statewide hunting and fishing license purchasers reported having had a big game hunting tag during the preceding three years, with metro-area (91%) and nonmetro (95%) hunting license purchasers much more likely to report having had a big game tag than those who were listed as being either metro-area (35%) or nonmetro (39%) fishing license purchasers in 1997.

Among that segment of the statewide general public sample that reported having had a big game tag of some type during the preceding three years, 68% indicated that they took a big game hunting trip in Utah during 1997. Thus, nearly one-third of those who had been active participants in big game hunting in recent years did not participate during 1997. Not surprisingly,

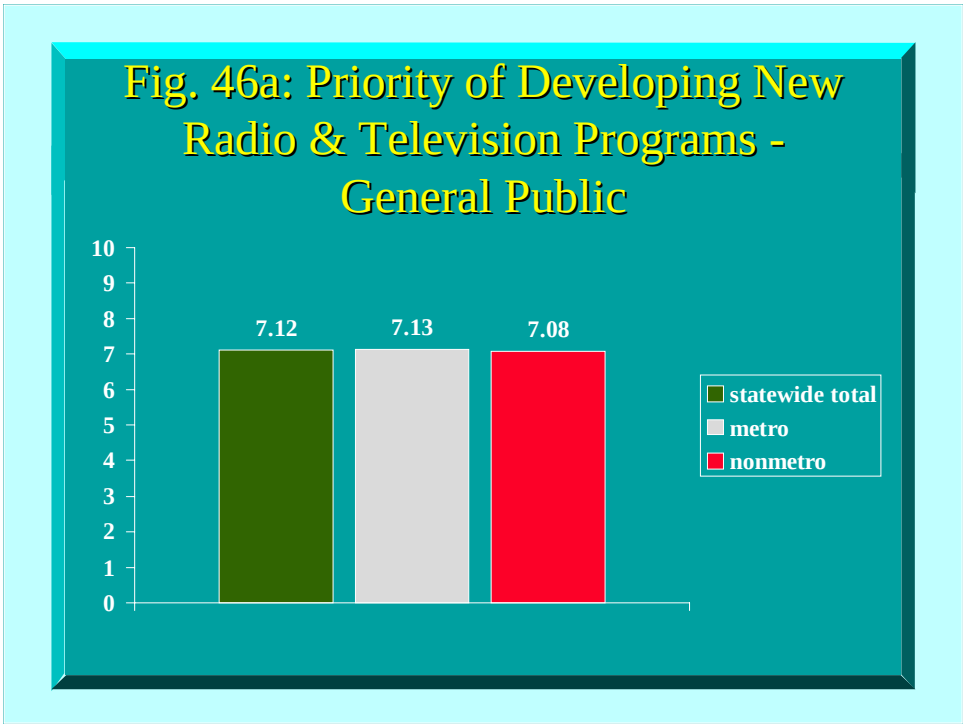


Fig. 46a: Priority of Developing New Radio & Television Programs - General Public
10
9
8
7
6
5
4
3
2
1
0
7.12
7.13
7.08
statewide total
metro
nonmetro

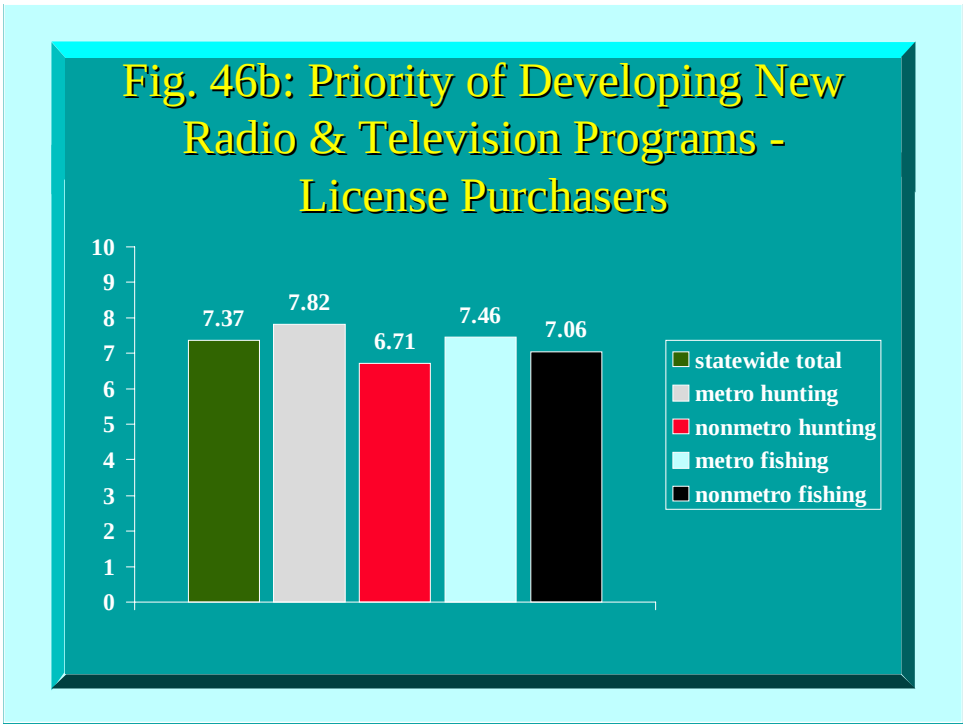


Fig. 46b: Priority of Developing New Radio & Television Programs - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
7.37
7.82
6.71
7.46
7.06
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 46. Response distributions to question measuring attitudes about the priority of developing new radio & television programs, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (very low priority)	3.3	2.9	3.2	3.1	3.3	4.1	2.4	3.4
1	0.4	0.5	0.4	0.0	1.6	0.8	0.8	0.7
2	1.8	1.6	1.7	1.6	4.9	0.0	1.6	1.7
3	2.4	3.9	2.7	2.4	3.3	1.7	1.6	2.2
4	3.5	6.1	4.1	0.8	4.9	1.7	4.7	2.5
5	12.7	12.9	12.8	7.1	15.4	10.7	18.1	11.6
6	10.8	8.6	10.3	4.7	8.9	8.3	10.2	7.6
7	15.2	14.5	15.0	15.0	9.8	14.9	14.2	13.8
8	18.9	16.3	18.3	21.3	21.1	23.1	13.4	20.8
9	7.7	6.8	7.5	11.0	6.5	5.8	10.2	8.2
10 (very high priority)	23.3	25.9	23.9	33.1	20.3	28.9	22.8	27.6
Number of cases	455	441	1970*	127	123	121	127	942*
Mean response	7.13	7.08	7.12	7.82	6.71	7.46	7.06	7.37
Median response	7.00	7.00	7.00	8.00	7.00	8.00	7.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

a higher percentage (84%) of 1997 hunting/fishing license buyers reported taking a big game hunting trip in the state during1997. Among those who reported participation in big game hunts in 1997, about 45% reported spending a total of 6-15 days in the field, with about 33% reporting that they spend 3-5 days afield hunting big game in 1997. Relatively few respondents (about 6%) reported that they spent only 1-2 days involved in big game hunting during the 1997 season.

Big game hunters' ratings of the quality of their Utah big game hunting experiences revealed a tendency toward generally modest satisfaction overall. For the aggregated statewide sample of respondents who reported participation in big game hunting during the preceding three years, the mean rating on a scale ranging from 0 ("experiences have been extremely poor overall") to 10 ("experiences have been extremely good overall") was only slightly above the scale midpoint (5.65), as summarized in Figure 47 and Table 47. About 17% of responses fell in the "very poor" range (0-2), while about 30% fell in the "very good" range (8-10); nearly one-third of responses were clustered in the response range (4-6) surrounding the scale midpoint. The mean response to a similar question asked in the 1986 survey (Krannich and Cundy, 1987) was virtually the same (5.6).

When asked to indicate their level of approval of the idea of having a special adult-supervised, youth-only deer hunt for one day approximately a week before the opening of the general statewide deer hunting season, respondents were at best ambivalent. As indicated in Figure 47 and Table 48, for the combined statewide sample of license buyers who reported big game hunting participation the mean response (4.55) on the 0 ("strongly disapprove") to 10 ("strongly approve") response scale fell slightly below the scale midpoint. Overall, about 40% of responses were in the "strong disapproval" (0-2) range, while about 30% were in the "strong approval" (8-10) range. Thus, on this policy issue there is substantial variation and substantial

Fig. 47: Satisfaction with Big Game Hunting Experiences & Approval of Changes Relative to the Deer Hunts

statewide total (license purchasers)

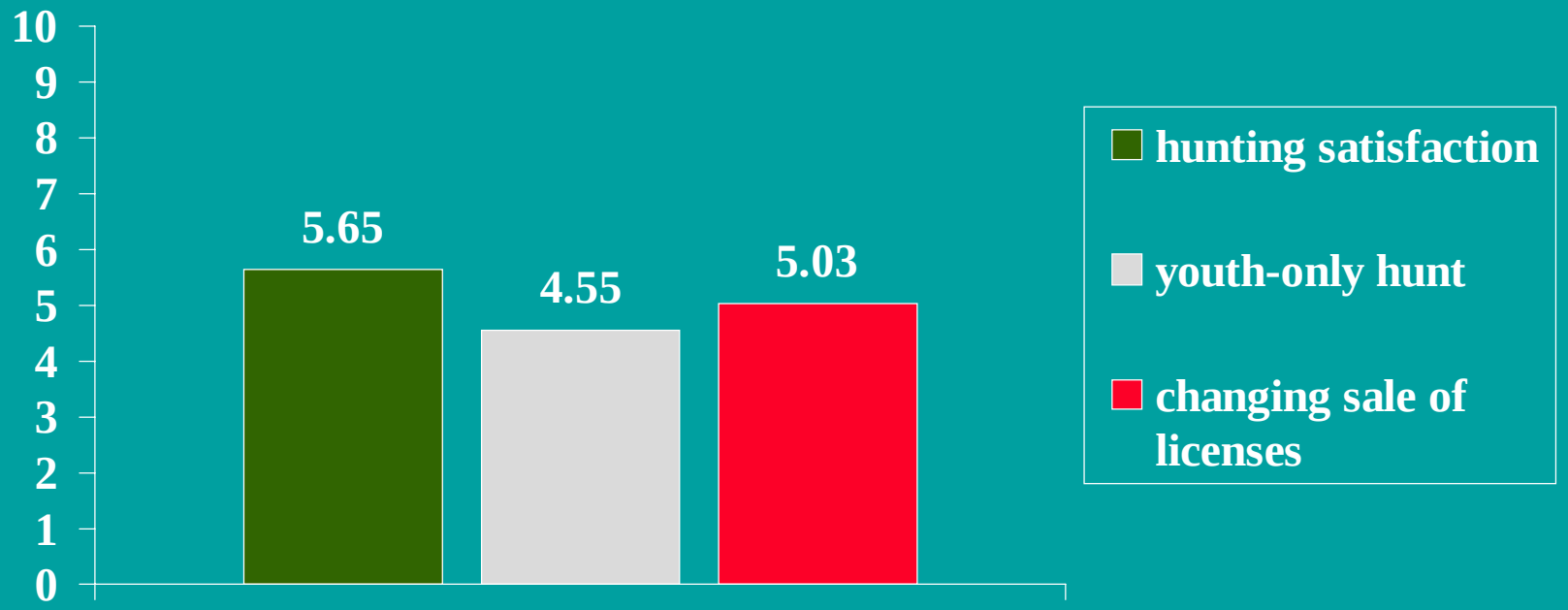


Table 47. Response distributions to question measuring attitudes about the satisfaction with big game hunting experiences in Utah, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers				
	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (extremely poor)	11.2	6.8	10.9	8.3	9.6
1	0.9	4.2	2.2	4.2	2.4
2	1.7	6.8	10.9	0.0	4.9
3	4.3	4.2	8.7	10.4	5.6
4	8.6	4.2	4.3	2.1	6.0
5	13.8	12.7	26.1	22.9	16.7
6	10.3	8.5	4.3	4.2	8.1
7	18.1	19.5	8.7	20.8	16.8
8	17.2	14.4	15.2	8.3	15.3
9	4.3	10.2	4.3	6.3	6.2
10 (extremely good)	9.5	8.5	4.3	12.5	8.4
Number of cases	116	118	46	48	624*
Mean response	5.81	5.90	4.89	5.77	5.65
Median response	6.00	7.00	5.00	6.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Table 48. Response distributions to question measuring attitudes about the approval of a youth-only deer hunt, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers				
	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	27.9	26.7	28.9	23.4	27.4
1	8.1	2.6	6.7	6.4	6.0
2	3.6	10.3	6.7	6.4	6.4
3	4.5	0.9	2.2	0.0	2.6
4	4.5	6.0	8.9	4.3	5.8
5	15.3	10.3	17.8	6.4	13.6
6	3.6	4.3	0.0	4.3	3.1
7	4.5	6.0	2.2	8.5	4.8
8	5.4	6.9	6.7	14.9	6.8
9	2.7	3.4	2.2	4.3	2.9
10 (strongly approve)	19.8	22.4	17.8	21.3	20.3
Number of cases	111	116	45	47	605*
Mean response	4.42	4.80	4.18	5.23	4.55
Median response	5.00	5.00	4.00	6.00	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

disagreement among Utah big game hunters.

A second policy question addressed big game hunters' views about the idea that procedures for sale of deer hunting licenses might be changed so that those who want to participate in traditional family hunting groups would be assured of being able to buy a license, even if doing so might result in increased hunting pressure and reduced hunter success in some areas. Once again, respondents expressed opinions that indicate very mixed and overall modest support for such a change. As indicated in Figure 47 and Table 49, the mean response on the 0-10 response scale fell at approximately the scale midpoint. Slightly over one-fourth (26.5%) of big game hunters statewide indicated substantial opposition (responses in the 0-2 range), while a similar proportion (28.1%) expressed substantial approval (responses in the 8-10 range). This bimodal distribution indicates that adoption of such a change by DWR would likely elicit both substantial support and substantial opposition among different segments of Utah's big game hunters.

Elk Management Issues

For the aggregated statewide license purchasers sample, 75% of respondents indicated that they had applied for or purchased an elk hunting permit in Utah one or more times in the past. Those who indicated that they had done so were subsequently asked several additional questions pertaining to the ways in which various elk hunting permits are allocated.

Respondents were first asked to indicate whether or not they favored continuing to issue general season muzzleloader elk permits by a drawing process. Over three-fourths (79%) of those responding indicated that they favored retention of the drawing process for allocation of muzzleloader permits. However, when asked a subsequent question about changing the allocation

Table 49. Response distributions to question measuring attitudes about the approval of changing the way that deer hunting licenses are sold, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	15.9	15.3	15.2	6.1	14.8
1	2.7	8.1	4.3	4.1	4.7
2	5.3	18.1	10.9	2.0	7.0
3	12.4	2.7	4.3	6.1	7.5
4	8.8	8.1	8.7	4.1	8.2
5	15.9	18.0	8.7	24.5	15.7
6	4.4	5.4	4.3	8.2	5.0
7	8.8	8.1	8.7	14.3	9.0
8	9.7	9.9	10.9	14.3	10.4
9	1.8	2.7	6.5	0.0	2.9
10 (strongly approve)	14.2	13.5	17.4	16.3	14.8
Number of cases	113	111	46	49	607*
Mean response	4.89	4.83	5.24	5.92	5.03
Median response	5.00	5.00	5.00	6.00	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

of general season any-bull elk permits to a drawing process, only one-third (33.5%) of respondents indicated that they would favor such a change. An even smaller proportion (29.5%) of respondents indicated that they would favor having spike-only general season bull elk permits allocated by way of a drawing process. Thus, even though license buyers who have applied for or received Utah elk permits in the past are generally supportive of the drawing process now used to allocate muzzleloader permits, there appears to be little support for a change involving the use of a drawing as a means of allocating general season elk permits.

Predator, Cougar and Bear Management Issues

Figures 48a and 48b and Table 50 summarize response distributions for a survey question asking respondents to indicate their levels of approval or disapproval about management practices that would attempt to limit or reduce populations of predators such as cougars or coyotes in order to protect populations of game animals. Among the general public there appears to be relatively little support for such practices. As indicated in Figure 48a, the mean response value on the 0 ("strongly disapprove") to 10 ("strongly approve") scale was below the midpoint (4.89); results derived from the aggregated statewide general public sample indicate that slightly over one-fourth of all adult Utahns would express substantial disapproval (response values of 0-2) to this kind of management effort, while slightly fewer than one-fourth would express substantial approval (response values of 8-10). This bimodal distribution suggests a potential for substantial polarization of public opinion on this issue. Metropolitan-area residents were substantially more likely than residents of Utah's nonmetropolitan counties to express disapproval of such a policy, although even among nonmetro residents about one-third of responses fell on the "disapprove" side of the scale midpoint. License purchasers as a group were considerably more likely than

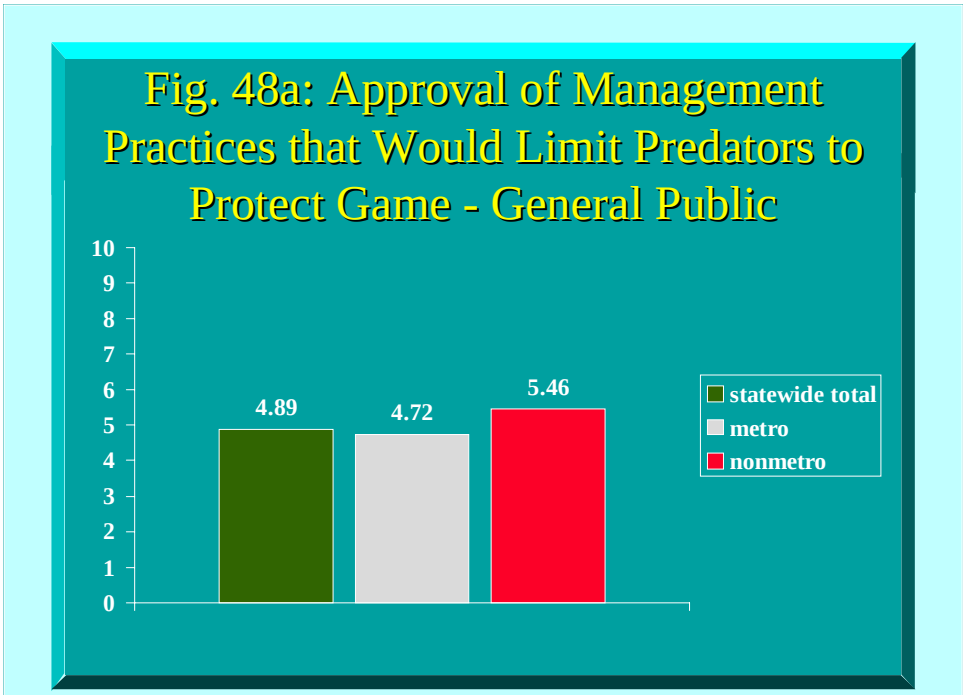


Fig. 48a: Approval of Management Practices that Would Limit Predators to Protect Game - General Public
10
9
8
7
6
5
4
3
2
1
0
4.89
4.72
5.46
statewide total
metro
nonmetro

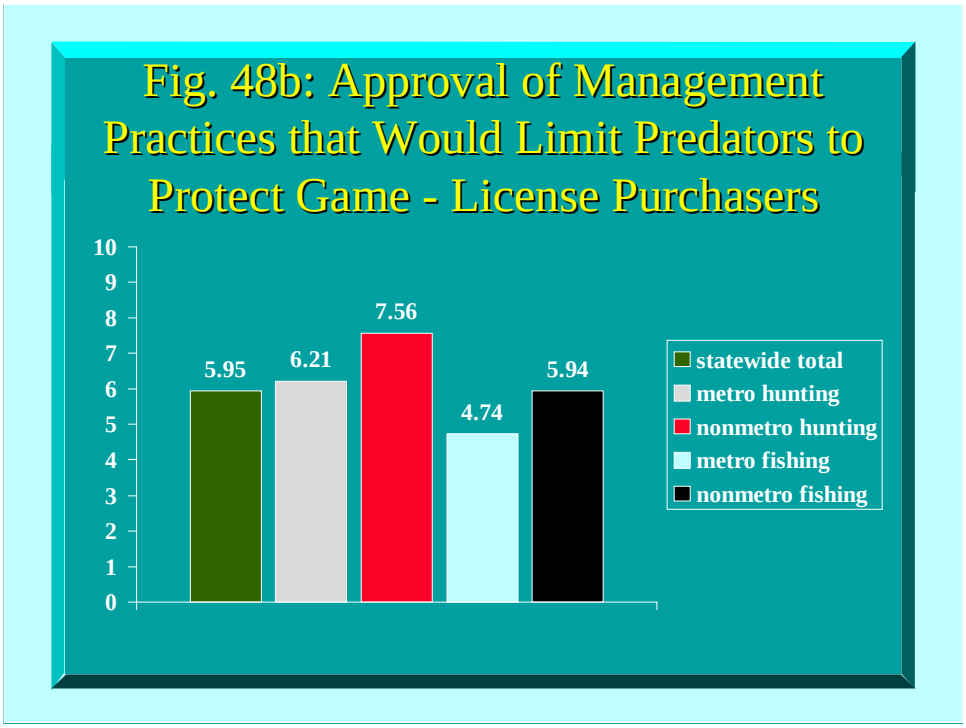


Fig. 48b: Approval of Management Practices that Would Limit Predators to Protect Game - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.95
6.21
7.56
4.74
5.94
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 50. Response distributions to question measuring attitudes about the approval of limiting or reducing predators to protect game, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	18.6	14.1	17.5	11.3	8.3	21.6	10.8	14.1
1	3.1	1.7	2.8	1.6	0.8	0.9	0.8	1.1
2	5.8	7.1	6.1	0.8	1.7	6.3	4.2	3.3
3	9.2	4.6	8.1	2.4	1.7	7.2	3.3	4.0
4	6.5	5.8	6.4	4.0	4.2	6.3	4.2	4.9
5	16.6	17.5	16.8	21.0	8.3	14.4	19.2	15.9
6	9.2	8.3	9.0	6.5	2.5	8.1	12.5	7.0
7	9.4	9.2	9.4	12.1	6.7	13.5	14.2	11.7
8	6.7	10.9	7.7	15.3	13.3	7.2	7.5	11.1
9	3.6	3.6	3.6	6.5	5.0	3.6	5.0	5.0
10 (strongly approve)	11.3	17.0	12.6	18.5	47.5	10.8	18.3	21.9
Number of cases	415	411	1805*	124	120	111	120	896*
Mean response	4.72	5.46	4.89	6.21	7.56	4.74	5.94	5.95
Median response	5.00	5.00	5.00	7.00	9.00	5.00	6.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

members of the public at large to express at least moderate levels of approval for predator management efforts that would protect game populations, with hunting license purchasers more positive overall than fishing license purchasers and nonmetropolitan-area license buyers more positive than their metropolitan counterparts (Figure 48b). Particularly noteworthy is the very high overall approval of this concept expressed by nonmetropolitan hunting license purchasers, indicative of concerns among that constituency group that predation may be having adverse effects on game populations.

When asked to indicate their approval or disapproval of using recreational hunting to manage cougar populations in Utah, general public respondents were more likely overall to express disapproval. As indicated in Figure 49a and Table 51, the mean response value for the aggregated statewide general public sample (4.4) was well below the scale midpoint; approximately one-third of response values for the aggregated sample are in the "substantial disapproval" range (0-2), and nearly one-half fall below the scale midpoint. In contrast, about one-fifth of response values fall in the "substantial approval" range, again indicative of substantial potential for polarization on this issue. Metropolitan-area residents were substantially more likely to express disapproval (mean = 4.2) than were nonmetropolitan residents (mean = 5.1). In contrast with the public at large, hunting and fishing license buyers as a combined group were moderately supportive overall of recreational cougar hunting (mean = 6.36). However, as indicated in Figure 49b, that support derives primarily from high levels of approval among both metropolitan (mean = 7.21) and especially nonmetropolitan (mean = 8.08) hunting license purchasers; fishing license purchasers as a group and particularly metropolitan-area fishing license buyers were substantially less supportive.

Overall, there appears to be relatively little support among Utah residents for policies that

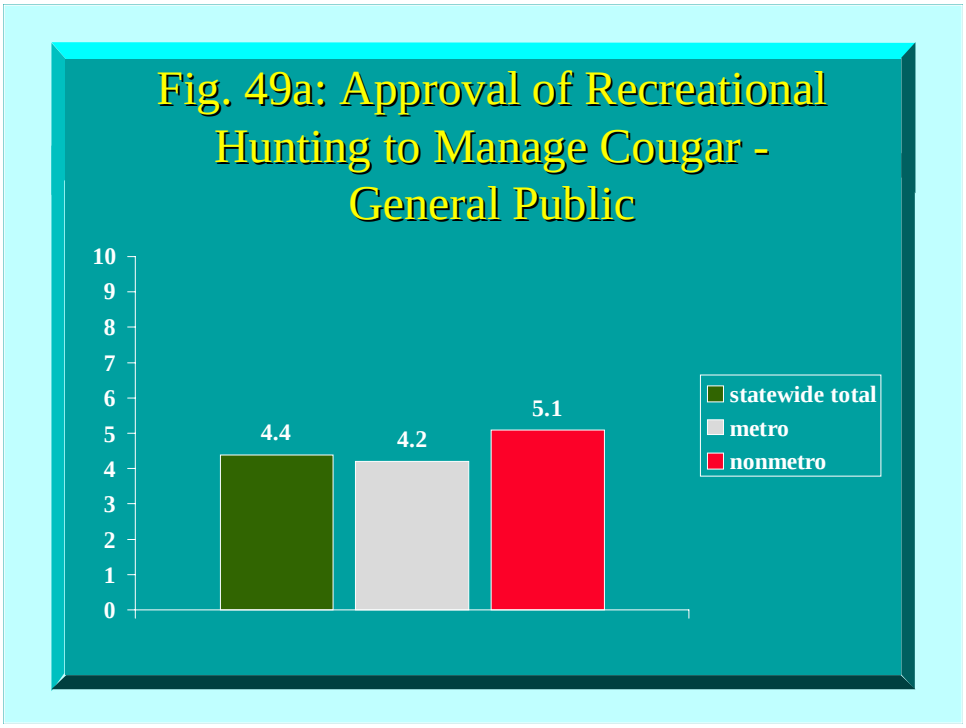


Fig. 49a: Approval of Recreational Hunting to Manage Cougar - General Public
10
9
8
7
6
5
4
3
2
1
0
4.4
4.2
5.1
statewide total
metro
nonmetro

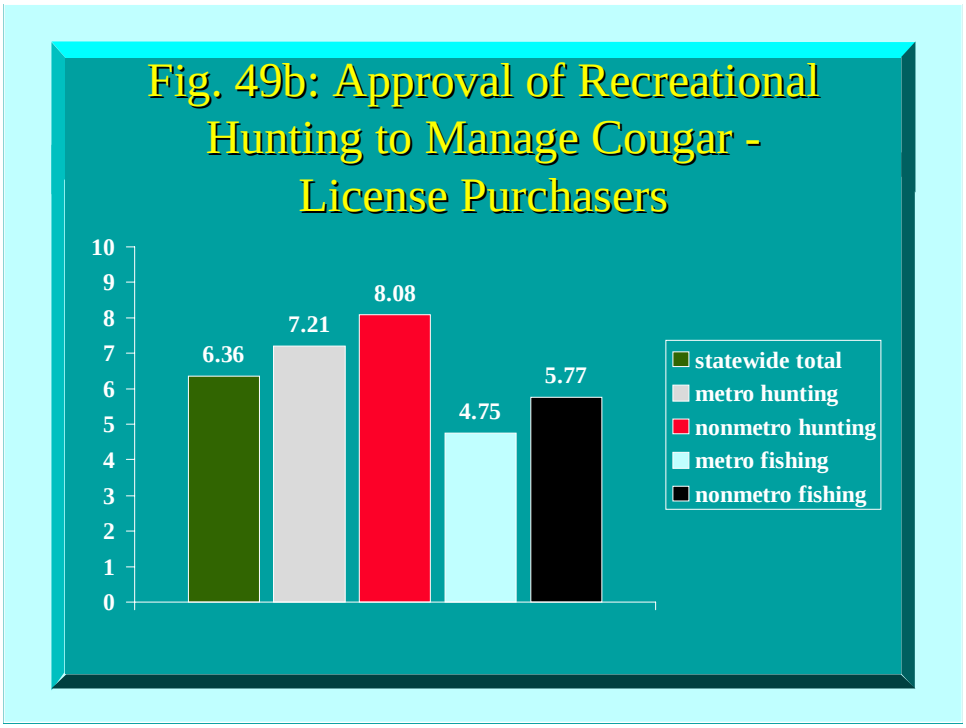


Fig. 49b: Approval of Recreational Hunting to Manage Cougar - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
6.36
7.21
8.08
4.75
5.77
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 51. Response distributions to question measuring attitudes about the approval of using recreational hunting to manage cougar, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	23.4	17.9	22.2	8.3	3.4	18.3	13.3	11.4
1	2.8	2.5	2.8	1.7	0.0	2.8	0.8	1.6
2	7.3	5.5	6.9	0.0	0.8	8.3	4.2	3.6
3	8.5	6.2	8.0	1.7	0.8	9.2	3.3	4.3
4	8.3	6.2	7.8	2.5	4.2	5.5	5.0	4.2
5	15.8	16.1	15.9	8.3	10.2	14.7	13.3	11.6
6	7.1	6.9	7.1	2.5	0.8	7.3	11.7	5.1
7	9.9	9.7	9.9	11.7	11.9	7.3	17.5	11.0
8	7.1	11.7	8.1	30.0	11.9	11.0	13.3	17.5
9	1.2	3.5	1.7	7.5	5.9	6.4	3.3	6.2
10 (strongly approve)	8.5	13.9	9.7	25.8	50.0	9.2	14.2	76.4
Number of cases	423	403	1824*	120	118	109	120	878*
Mean response	4.20	5.10	4.40	7.21	8.08	4.75	5.77	6.36
Median response	4.00	5.00	5.00	8.00	9.50	5.00	6.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

would continue to allow the use of hounds to hunt cougar in the state. As indicated in Figure 50a and Table 52, results from the statewide general public sample indicate relatively low approval (mean = 3.5) of this policy; response distributions indicate that nearly one-half of adult Utahns would tend to express substantial disapproval (46.0% of responses fall between 0 and 2), while only about 17% of responses were in the response range (8-10) indicating substantial approval. Once again, metropolitan-area residents appear to be especially likely to express disapproval (mean = 3.33); nonmetropolitan residents generally expressed disapproval (mean = 4.13), but were slightly more positive than their metropolitan counterparts. In contrast, license purchasers as a group (Figure 50b) were moderately supportive of the use of hounds to hunt cougar, primarily because of moderately high approval ratings among metropolitan hunting license buyers and high overall approval among nonmetropolitan hunting license buyers. Fishing license purchasers, particularly those from the metropolitan areas of the state, were substantially less supportive.

Responses to a question asking about levels of approval of recreational hunting of black bear indicate somewhat lower levels of approval than were obtained for the question asking about recreational cougar hunting. As indicated in Figure 51a and Table 53, responses from both the metropolitan area and nonmetropolitan general public samples revealed a tendency for residents to disapprove rather than approve of recreational bear hunting. Results from the aggregated statewide sample suggest that over one-third of Utahns would express substantial disapproval of this management approach, while fewer than one-fifth would express substantial approval. Higher levels of approval are evident among license buyers (Figure 51b), though only among hunting license purchasers is there a general tendency to express at least moderate levels of approval rather than disapproval.

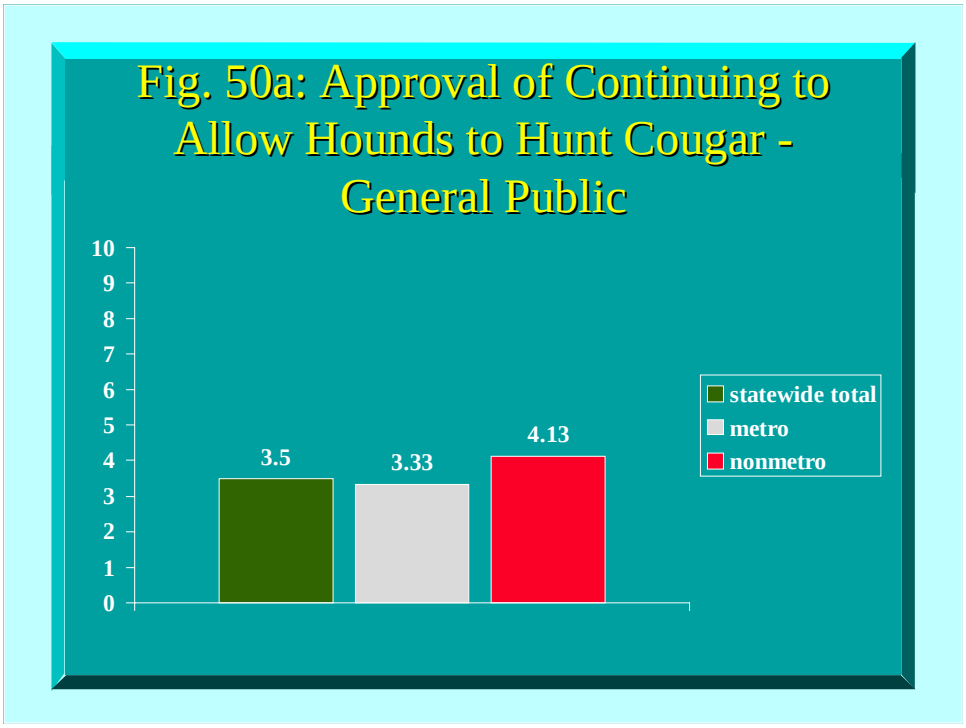


Fig. 50a: Approval of Continuing to Allow Hounds to Hunt Cougar - General Public
10
9
8
7
6
5
4
3
2
1
0
3.5
3.33
4.13
statewide total
metro
nonmetro

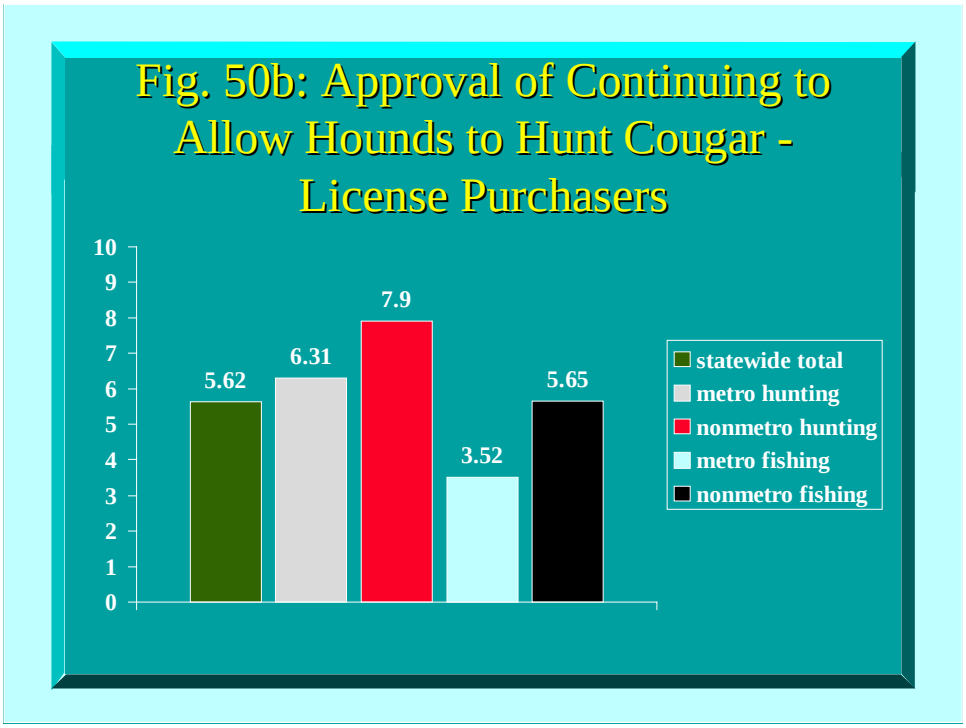


Fig. 50b: Approval of Continuing to Allow Hounds to Hunt Cougar - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.62
6.31
7.9
3.52
5.65
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 52. Response distributions to question measuring attitudes about the approval of using hounds to hunt cougar, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	32.5	30.1	32.0	13.2	4.9	30.3	16.5	17.7
1	6.5	4.8	6.1	3.3	0.8	6.4	5.0	4.1
2	8.4	6.4	7.9	0.8	1.6	8.3	4.1	4.0
3	9.3	8.7	9.2	5.8	0.8	2.8	2.5	3.3
4	6.0	4.3	5.6	0.8	1.6	7.3	5.0	3.8
5	15.1	11.5	14.3	14.0	11.5	21.1	14.0	15.9
6	2.9	3.8	3.1	6.6	4.1	7.3	3.3	5.9
7	4.3	5.4	4.5	8.3	6.6	2.8	10.7	6.4
8	7.4	16.9	7.3	13.2	13.9	6.4	10.7	10.7
9	1.0	2.6	1.3	6.6	3.3	1.8	7.4	4.4
10 (strongly approve)	6.7	15.6	8.6	27.3	50.8	5.5	20.7	24.0
Number of cases	418	392	1796*	121	122	109	121	887*
Mean response	3.33	4.13	3.50	6.31	7.90	3.52	5.65	5.62
Median response	3.00	3.50	3.00	7.00	10.00	4.00	6.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

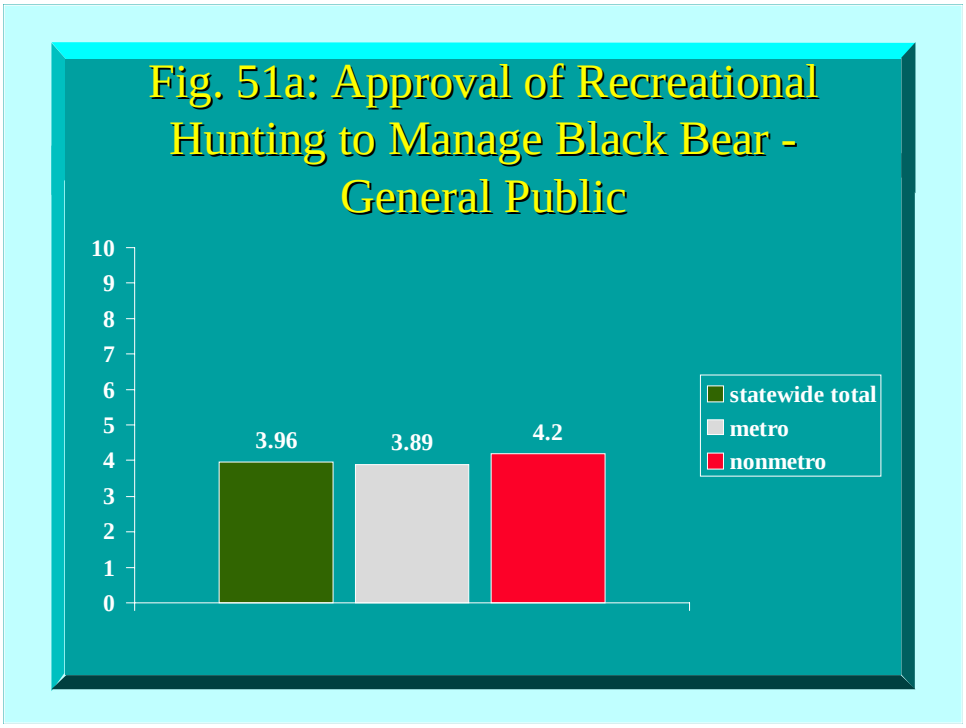


Fig. 51a: Approval of Recreational Hunting to Manage Black Bear - General Public
10
9
8
7
6
5
4
3
2
1
0
3.96
3.89
4.2
statewide total
metro
nonmetro

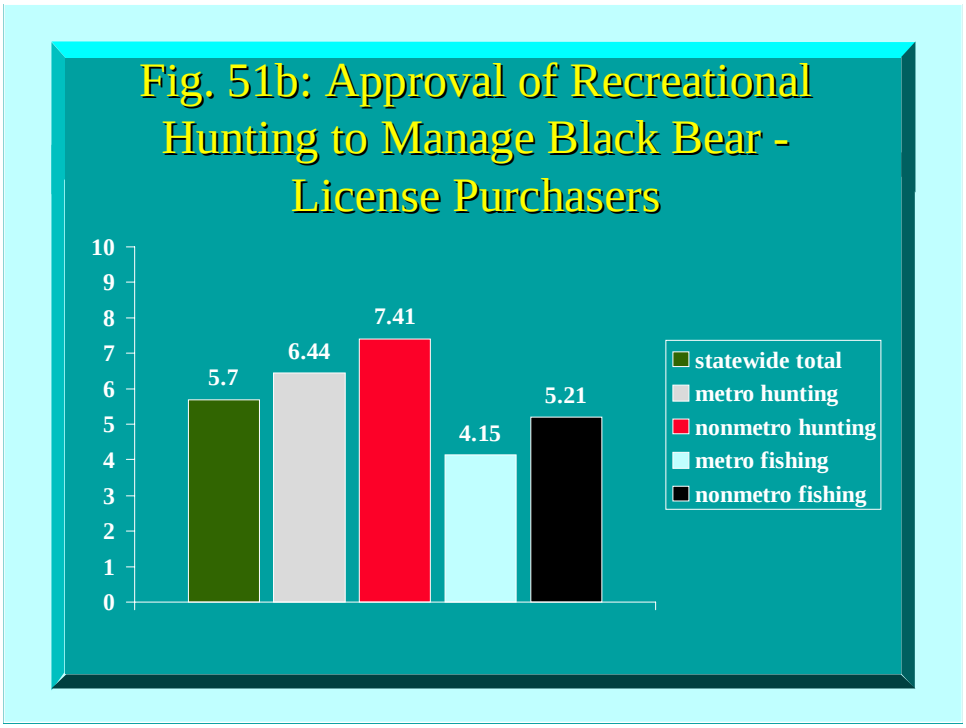


Fig. 51b: Approval of Recreational Hunting to Manage Black Bear - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
5.7
6.44
7.41
4.15
5.21
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 53. Response distributions to question measuring attitudes about the approval of using recreational hunting to manage black bear, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	27.0	24.0	26.3	12.5	5.2	21.5	15.5	14.4
1	3.6	4.0	3.6	1.7	1.7	4.7	2.6	2.8
2	8.8	8.1	8.6	3.3	2.6	7.5	4.3	4.7
3	7.1	6.7	7.0	0.8	1.7	10.3	6.0	4.9
4	7.6	5.4	7.1	3.3	0.9	6.5	6.9	4.4
5	15.6	18.3	16.2	13.3	14.7	15.9	19.0	15.2
6	6.2	6.4	6.2	7.5	6.0	7.5	11.2	7.7
7	7.6	7.9	7.7	12.5	6.9	10.3	8.6	10.1
8	8.3	8.9	8.4	12.5	15.5	6.5	7.8	10.5
9	1.4	2.2	1.6	4.2	5.2	3.7	1.7	3.9
10 (strongly approve)	6.9	8.1	7.2	28.3	39.7	5.6	16.4	21.4
Number of cases	422	405	1823*	120	116	107	116	865*
Mean response	3.89	4.20	3.96	6.44	7.41	4.15	5.21	5.70
Median response	4.00	5.00	4.00	7.00	8.00	4.00	5.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Figures 52a and 52b and Table 54 summarize responses to a question asking respondents to indicate their approval or disapproval of the use of hounds to hunt black bear in Utah. Among the general public, this management policy received very low approval ratings (Figure 52a), with mean scores for the aggregated statewide sample as well as for both metropolitan and nonmetropolitan residents falling substantially below the midpoint of the 0-10 response scale. Results derived from the aggregated statewide sample indicate that over one-half of Utahns could be expected to express substantial disapproval of hunting bear with hounds, while only about 10% would express substantial approval. Even among license purchasers (Figure 52b) there is little evidence overall of support for this approach to bear management, with only nonmetropolitan hunting license buyers (mean = 6.98) expressing overall approval of such policies.

Finally, respondents were asked to indicated their approval or disapproval of allowing bear hunters to use baits to attract bears. As indicated in Figures 53a and 53b and Table 55, this concept received extremely low approval ratings on the part of both the general public and most categories of license purchasers. For the statewide public at large, results from the aggregated sample indicate a mean response value of just 2.28, with nearly two-thirds (62%) of response values in the "substantial disagreement" range and only about 6% in the "substantial agreement" range. License purchasers as a group were also generally likely to express substantial disapproval, with only nonmetropolitan hunting licensees (mean = 5.6) exhibiting even modest tendencies toward approval.

Upland Game Hunting and Management Issues

About 14% of the statewide general public sample and slightly under one-half (48%) of resident hunting/fishing license purchasers indicated that they had purchased a license to hunt

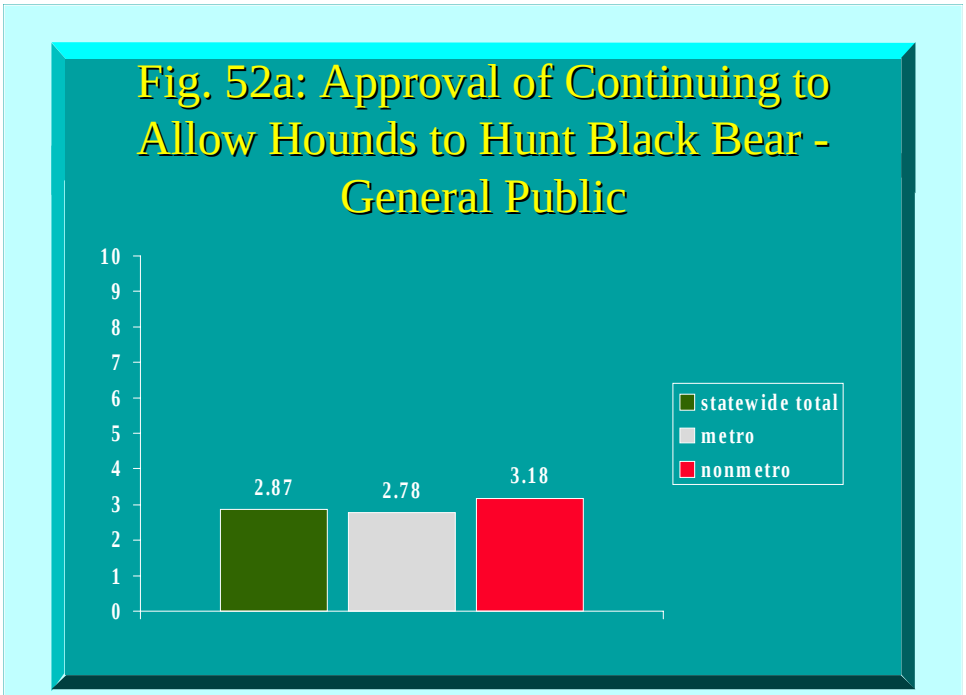


Fig. 52a: Approval of Continuing to Allow Hounds to Hunt Black Bear - General Public
10
9
8
7
6
5
4
3
2
1
0
2.87
2.78
3.18
statewide total
metro
nonmetro

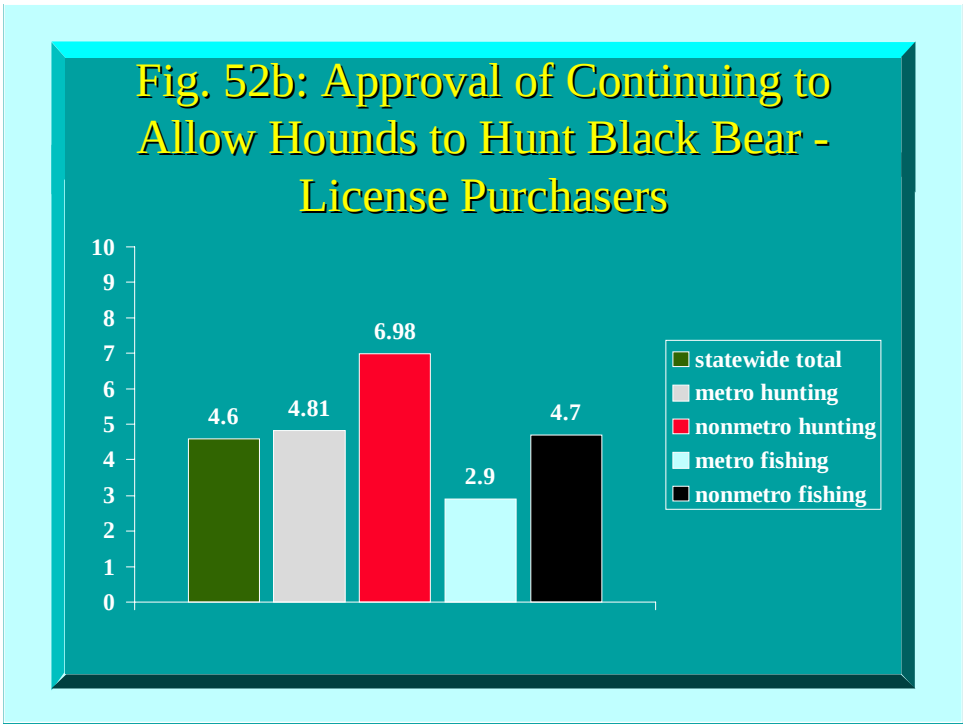


Fig. 52b: Approval of Continuing to Allow Hounds to Hunt Black Bear - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
4.6
4.81
6.98
2.9
4.7
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 54. Response distributions to question measuring attitudes about the approval of using hounds to hunt black bear, general public and hunting/fishing license purchaser samples (percentages).

	General Public			License Purchasers				
Response Value	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	38.7	36.8	38.3	24.0	9.4	38.9	21.2	25.6
1	5.3	5.6	5.4	4.1	0.9	5.6	5.9	4.2
2	11.8	8.6	11.1	3.3	3.4	6.5	5.1	4.6
3	7.2	9.6	7.7	5.0	0.0	7.4	5.1	4.8
4	7.5	4.3	6.8	5.0	6.0	9.3	6.8	6.9
5	11.5	11.7	11.6	15.7	13.7	14.8	15.3	14.9
6	2.6	3.6	2.8	9.9	6.0	3.7	7.6	6.7
7	6.3	6.3	6.3	7.4	6.0	2.8	6.8	5.5
8	4.8	4.3	4.7	3.3	11.1	6.5	8.5	6.7
9	1.0	1.3	1.0	4.1	4.3	1.9	3.4	3.3
10 (strongly approve)	3.4	7.9	4.4	18.2	39.3	2.8	14.4	16.8
Number of cases	416	394	1792*	121	117	108	118	874*
Mean response	2.78	3.18	2.87	4.81	6.98	2.90	4.70	4.60
Median response	2.00	2.00	2.00	5.00	8.00	2.00	5.00	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

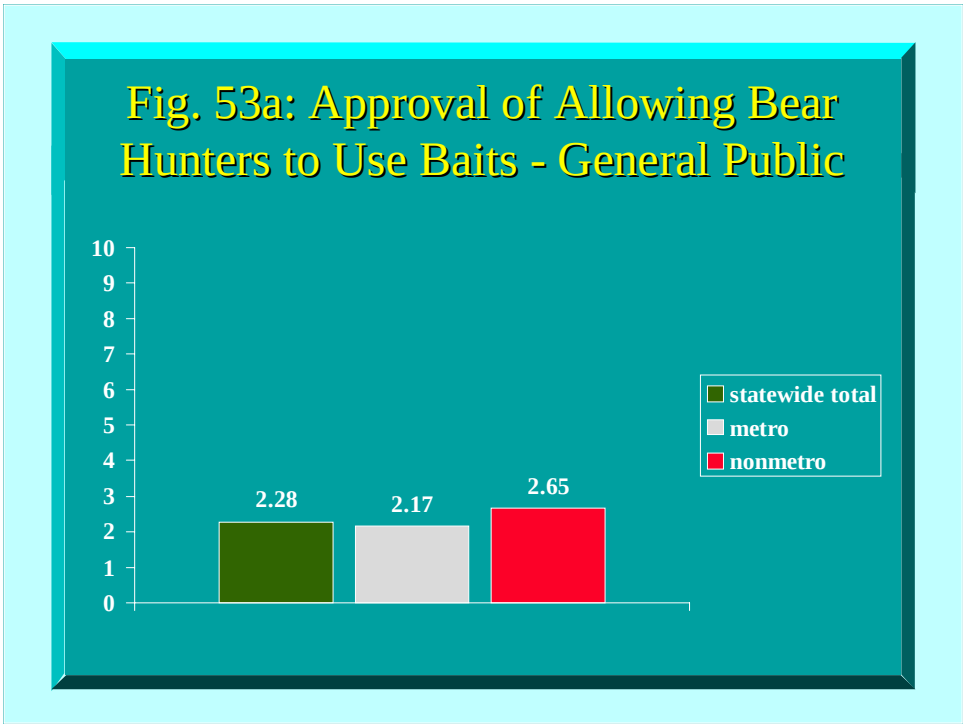


Fig. 53a: Approval of Allowing Bear Hunters to Use Baits - General Public
10
9
8
7
6
5
4
3
2
1
0
2.28
2.17
2.65
statewide total
metro
nonmetro

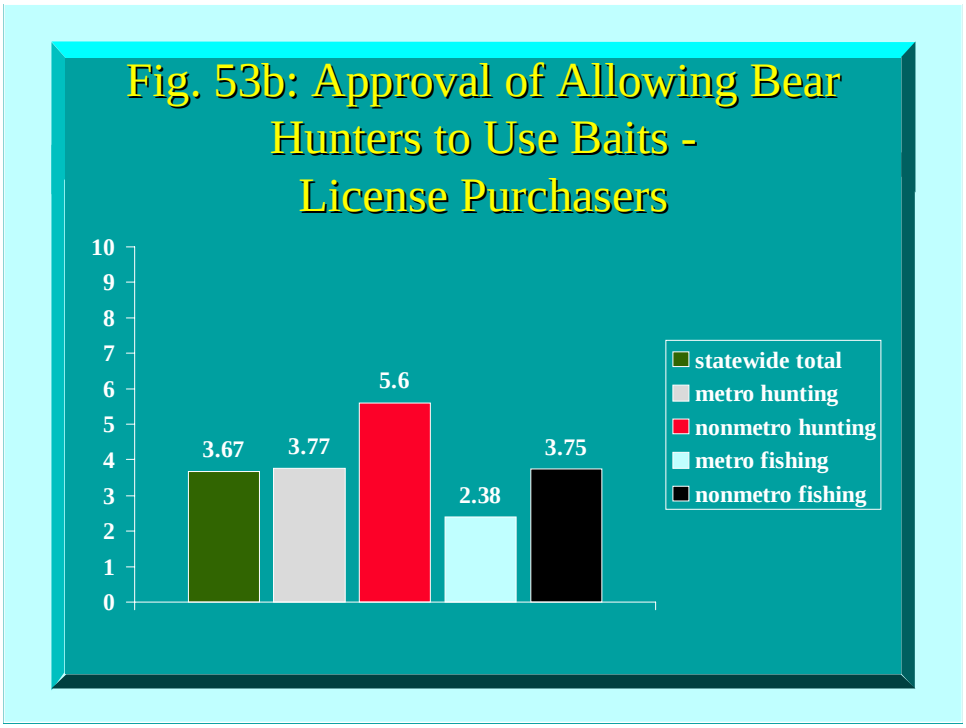


Fig. 53b: Approval of Allowing Bear Hunters to Use Baits - License Purchasers
10
9
8
7
6
5
4
3
2
1
0
3.67
3.77
5.6
2.38
3.75
statewide total
metro hunting
nonmetro hunting
metro fishing
nonmetro fishing

Table 55. Response distributions to question measuring attitudes about the approval of allowing bear hunters to use baits, general public and hunting/fishing license purchaser samples (percentages).

Response Value	General Public			License Purchasers				
	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	45.5	41.2	44.6	32.0	18.5	43.2	30.5	32.8
1	7.6	5.1	7.1	7.4	0.8	8.1	4.2	5.9
2	10.2	11.3	10.4	4.9	7.6	10.8	5.9	7.6
3	9.0	10.0	9.2	6.6	4.2	6.3	7.6	6.1
4	4.4	3.4	4.2	9.8	5.9	7.2	8.5	7.9
5	12.5	13.5	12.7	19.0	13.4	9.0	17.8	11.1
6	2.3	3.2	2.5	3.3	6.7	4.5	5.1	4.7
7	3.5	2.7	3.3	7.4	3.4	4.5	4.2	5.1
8	2.8	3.7	3.0	4.9	6.7	2.7	3.4	4.3
9	0.9	0.5	0.8	2.5	5.0	0.9	0.8	2.2
10 (strongly approve)	1.4	5.4	2.3	12.3	27.7	2.7	11.9	12.1
Number of cases	433	408	1863*	122	119	111	118	888*
Mean response	2.17	2.65	2.28	3.77	5.60	2.38	3.75	3.67
Median response	1.00	2.00	1.00	3.00	5.00	1.00	4.00	3.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

small game in Utah during the past three years. Slightly over two-thirds of the 1997 license purchasers indicated that they had taken at least one upland game hunting trip in Utah during 1997. Among those reporting such trips, approximately 17% reported spending a total of 1-2 days, with 33% spending 3-5 days, 27% spending 6-15 days, and 23% indicating that they had spent 16 or more days hunting upland game in 1997.

When asked to report on the quality of their upland game hunting experiences in Utah over the past several years, respondents generally indicated only moderate satisfaction overall. As indicated in Figure 54 and Table 56, the mean response value on the 0 ("extremely poor") to 10 ("extremely good") rating scale was 5.26; detailed response distributions revealed that about 16% of upland hunters tend to rate their experiences as "very poor" (response range of 0-2) overall, while about 23% rate them as "very good" (responses of 8-10). Responses to a similar item included in the 1986 survey produced a mean response value (5.5) only slightly higher than that reported by respondents to the 1998 survey, indicating little change in overall satisfaction levels among upland game hunters over the past decade.

Upland hunters were also asked to indicate their approval or disapproval of the idea of having DWR offer special one-day, youth-only upland game hunts. Overall, this concept received only modest approval ratings, as indicated by the mean response value of 5.65 on the 0-10 scale (see Figure 54 and Table 57). Slightly over one-fourth of responses for the statewide sample of those reporting upland hunting participation fell in the "strong disapproval" (0-2) range of the scale, while over 40% were in the "strong approval" (8-10) range.

Substantially higher approval was expressed by upland hunters with the idea of having DWR release pen-raised pheasants or other game birds in order to increase the number of birds available during hunting seasons, as indicated in Figure 54 and Table 58. The mean response

Fig. 54: Satisfaction with Upland Game Hunting & Approval of Changes Relative to those Hunts

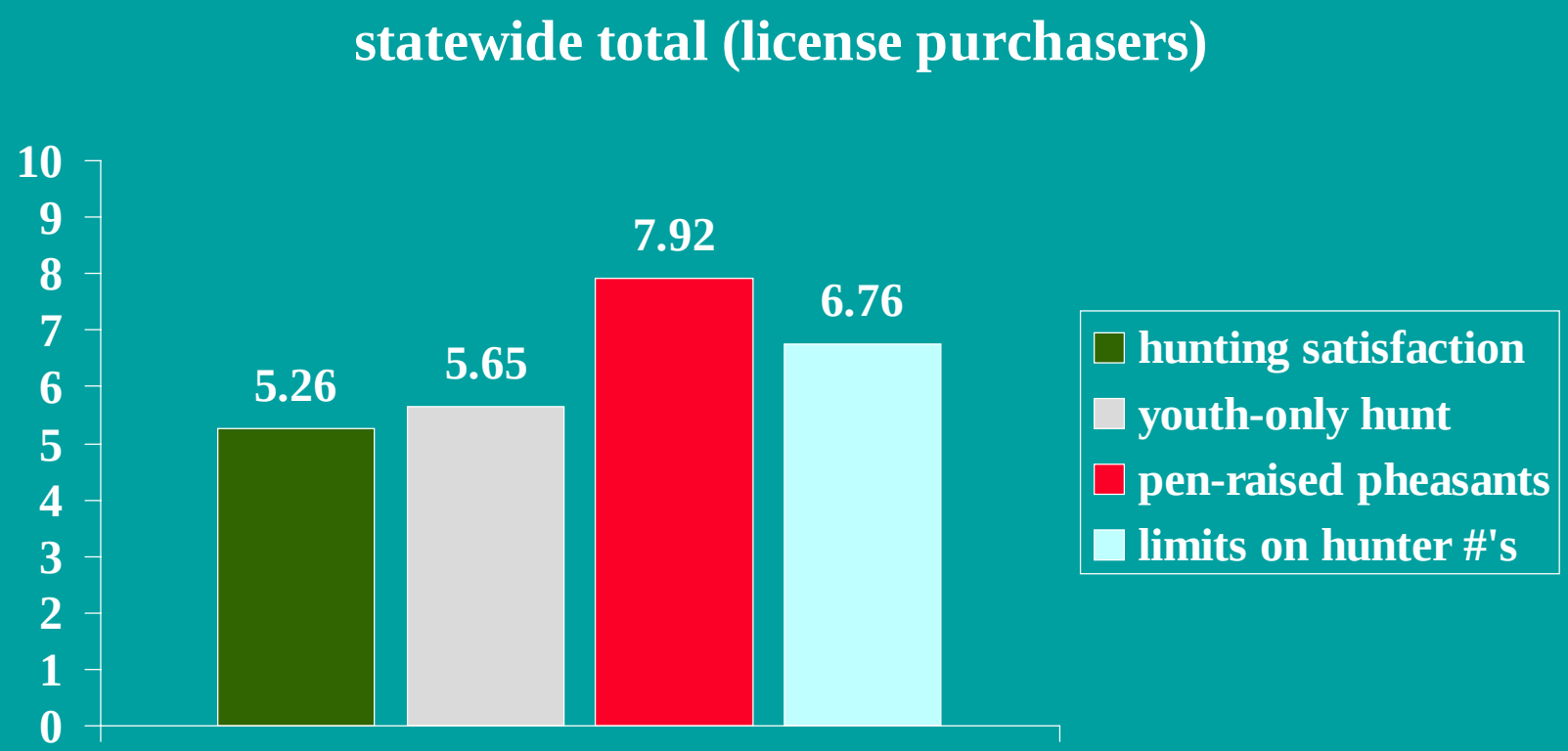


Table 56. Response distributions to question measuring attitudes about the satisfaction with upland game hunting in Utah, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (extremely poor)	5.9	6.6	25.0	4.8	9.2
1	1.5	4.9	10.0	0.0	3.8
2	1.5	6.6	0.0	4.8	2.9
3	19.1	9.8	10.0	0.0	13.7
4	5.9	9.8	0.0	4.8	6.0
5	20.6	16.4	5.0	4.8	15.7
6	5.9	11.5	10.0	14.3	8.7
7	19.1	11.5	20.0	19.0	17.0
8	8.8	16.4	5.0	23.8	11.3
9	5.9	3.3	10.0	4.8	5.7
10 (extremely good)	5.9	3.3	5.0	19.0	5.8
Number of cases	68	61	20	21	327*
Mean response	5.40	5.11	4.45	6.95	5.26
Median response	5.00	5.00	5.50	7.00	5.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Table 57. Response distributions to question measuring attitudes about the approval of a youth-only upland game hunt, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	27.6	21.7	12.9	15.2	22.2
1	3.4	1.2	6.5	3.0	3.3
2	1.1	4.8	6.5	0.0	3.1
3	2.3	3.6	3.2	0.0	2.7
4	2.3	6.0	3.2	9.1	4.1
5	10.3	13.3	3.2	9.1	9.7
6	3.4	3.6	6.5	12.1	4.7
7	4.6	7.2	16.1	12.1	8.1
8	9.2	0.0	12.9	6.1	10.1
9	4.6	10.8	3.2	6.1	3.1
10 (strongly approve)	31.0	27.7	25.8	27.3	28.8
Number of cases	87	83	31	33	446*
Mean response	5.52	5.48	6.00	6.18	5.65
Median response	6.00	5.00	7.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Table 58. Response distributions to question measuring attitudes about the approval of a raising & releasing pen-raised pheasants, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	5.7	4.6	16.1	0.0	6.9
1	0.0	2.3	0.0	0.0	0.7
2	1.1	1.1	0.0	0.0	0.8
3	0.0	1.1	3.2	0.0	0.9
4	0.0	0.0	6.5	0.0	1.2
5	3.4	13.8	3.2	3.0	6.5
6	4.6	3.4	3.2	6.1	4.1
7	8.0	8.0	16.1	18.2	10.3
8	11.5	16.1	9.7	21.2	13.2
9	8.0	3.4	6.5	3.0	6.0
10 (strongly approve)	57.5	46.0	35.5	48.5	50.7
Number of cases	87	87	31	33	453*
Mean response	8.43	7.74	6.74	8.61	7.92
Median response	10.00	8.00	8.00	9.00	9.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Table 59. Response distributions to question measuring attitudes about the approval of having DWR impose limits on the number of upland game hunters, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	8.0	7.1	19.4	8.8	10.0
1	1.1	0.0	0.0	0.0	0.5
2	0.0	1.2	3.2	2.9	1.2
3	4.6	2.4	3.2	0.0	3.3
4	1.1	5.9	0.0	5.9	2.7
5	10.3	16.5	12.9	26.5	13.8
6	10.3	4.7	3.2	8.8	7.2
7	8.0	7.1	25.8	14.7	11.6
8	17.2	21.2	12.9	8.8	16.9
9	3.4	4.7	3.2	5.9	4.0
10 (strongly approve)	35.6	29.4	16.1	17.6	28.8
Number of cases	87	85	31	34	451*
Mean response	7.15	6.99	5.74	6.18	6.76
Median response	8.00	8.00	7.00	6.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

value (7.92) indicates very high overall approval of this management approach, with over two-thirds of response values falling in the "strong approval" (8-10) range on the measurement scale.

The final question in this section asked upland hunters whether they approved or disapproved of having DWR impose limits on the number of hunters who could access heavily-used wildlife management areas during busy periods of upland game hunting seasons. Overall, respondents indicated fairly high levels of approval of this management strategy (Figure 54, Table 59). The mean response value for all license purchasers who reported participation in upland game hunting was 6.76, with results from the aggregated statewide sample indicating that only about 12% of upland hunters would tend to express substantial disapproval while about 50% expressed very high levels of approval.

Waterfowl Hunting and Management Issues

Among the aggregated sample of 1997 license purchasers, 36% indicated that they had taken at least one waterfowl hunting trip in Utah during 1997. Among those so indicating, similar proportions reported hunting waterfowl for only 1-2 days (15%) or for 3-5 days (16%). About one-fourth (24%) of waterfowl hunters indicated that they hunted for 6-15 days, while a substantial proportion (45%) reported that they had hunted waterfowl for 16 or more days during the 1997 season.

Waterfowl hunters' evaluations of the overall quality of their hunting experiences indicate generally high levels of satisfaction (see Figure 55 and Table 60). On a response scale ranging from 0 ("extremely poor overall") to 10 ("extremely good overall") the mean response value among those who reported participation in waterfowl hunting was 7.27, with the statewide response distributions indicating that only about 12% of hunters reported "very poor" (0-2)

Fig. 55: Satisfaction with Waterfowl Hunting & Approval of Changes Relative to those Hunts

statewide total (license purchasers)

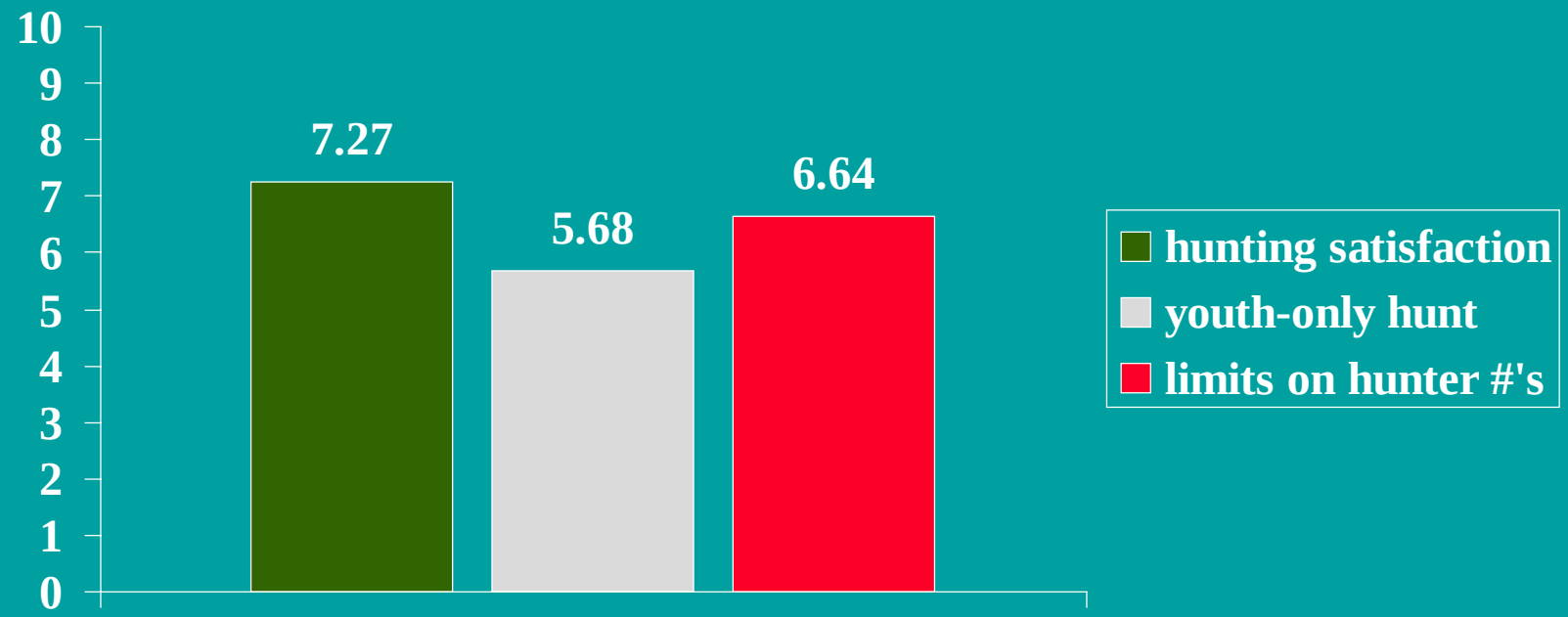


Table 60. Response distributions to question measuring attitudes about the satisfaction with waterfowl hunting in Utah, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (extremely poor)	6.4	0.0	50.0	0.0	10.2
1	2.1	0.0	0.0	0.0	1.3
2	0.0	0.0	0.0	0.0	0.0
3	2.1	0.0	0.0	0.0	1.3
4	0.0	0.0	0.0	11.1	0.6
5	6.4	12.5	0.0	0.0	6.6
6	6.4	8.3	0.0	11.1	6.2
7	12.8	12.5	12.5	0.0	12.0
8	19.1	29.2	12.5	22.2	20.6
9	12.8	16.7	0.0	22.2	12.5
10 (extremely good)	31.9	20.8	25.0	33.3	28.8
Number of cases	47	24	8	9	176*
Mean response	7.55	7.92	4.38	8.22	7.27
Median response	8.00	8.00	3.50	9.00	8.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

experiences while over 60% reported “very good” (8-10) experiences. These values indicate a substantial increase in levels of satisfaction among waterfowl hunters in the period since the 1986 survey; at that time a similar item produced a mean response value of only 5.1, with 28% of responses in the 0-2 range and only 18.9% in the 8-10 range. Clearly Utah waterfowl hunters have responded favorably to improved conditions that have emerged in the years since the 1986 survey, when the lingering effects of flooding around the Great Salt Lake and declines in waterfowl populations had significant effects on hunting access and hunter success.

Responses to a question asking hunters to indicate their approval or disapproval of having DWR offer special one-day, youth-only waterfowl hunts revealed limited support for such a program (Figure 55, Table 61). The mean response value on the 0 (“strongly disapprove”) to 10 (“strongly approve”) scale was 5.68, with response distributions revealing a fairly large proportion of hunters who would express substantial disapproval (0-2 responses; 26.5%) and an even larger proportion who would express substantial approval (8-10 responses; 42.4%).

Finally, hunters expressed generally positive responses to the idea of having DWR provide several high-quality waterfowl hunting areas where there would be limits on the number of hunters who could use a state wildlife management area on a given day. As indicated in Figure 55 and Table 62, the mean response value for this question was 6.64; overall respondents were much more likely to express substantial approval (8-10 responses, 49.6%) as opposed to substantial disapproval (0-2 responses, 14.8%).

Fishing Participation and Management Issues

Survey results indicate that 68.6% of adult Utahns report having purchased a Utah fishing license at least once in their life, while 58.6% report having done so at least once within the past

Table 61. Response distributions to question measuring attitudes about the approval of a youth-only waterfowl hunt, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers				
	Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	28.7	18.8	16.7	20.6	23.0
1	1.1	2.4	3.3	2.9	2.0
2	0.0	2.4	3.3	2.9	1.5
3	3.4	2.4	6.7	0.0	3.5
4	3.4	4.7	3.3	8.8	4.2
5	13.8	16.5	13.3	2.9	13.7
6	2.3	3.5	6.7	8.8	4.0
7	2.3	4.7	13.3	11.8	5.8
8	5.7	11.8	10.0	5.9	8.3
9	5.7	3.5	3.3	2.9	4.4
10 (strongly approve)	33.3	29.4	20.0	32.4	29.6
Number of cases	87	85	30	34	448*
Mean response	5.55	5.89	5.53	5.91	5.68
Median response	5.00	6.00	6.00	7.00	6.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

Table 62. Response distributions to question measuring attitudes about the approval of DWR limiting the number of waterfowl hunters, hunting/fishing license purchaser samples (percentages).

Response Value	License Purchasers: Metro Hunting	Nonmetro Hunting	Metro Fishing	Nonmetro Fishing	All License Purchasers (weighted)
0 (strongly disapprove)	9.2	14.5	12.9	5.9	11.2
1	2.3	1.2	0.0	0.0	1.4
2	2.3	1.2	3.2	2.9	2.2
3	1.1	0.0	3.2	0.0	1.1
4	4.6	1.2	3.2	2.9	3.2
5	12.6	9.6	12.9	5.9	11.3
6	6.9	12.0	12.9	8.8	9.7
7	10.3	8.4	6.5	26.5	10.3
8	14.9	16.9	25.8	23.5	18.2
9	2.3	9.6	3.2	0.0	4.4
10 (strongly approve)	33.3	25.3	16.1	23.5	27.0
Number of cases	87	83	31	34	447*
Mean response	6.79	6.63	6.13	7.09	6.64
Median response	8.00	8.00	7.00	7.00	7.00

*Number of cases for statewide samples inflated by statistical weighting adjustment to correct for metro/nonmetro and license type proportions

three years.

Among those who reported that they have never purchased a fishing license in Utah, the primary reasons reported for having not done so included having no interest in fishing (57.2%), not having time to fish (52%), and not knowing how to fish (39.4%). Less frequently selected reasons for not participating in fishing included having to travel too much to fish (16.1%), fishing regulations that are too complicated (15.5%), fishing licenses that are too expensive (15.1%), and fishing equipment that is too expensive (14.9%).

Among respondents who indicated that they have purchased a Utah fishing license in the past but have not done so within the past three years, the primary reason reported for not buying a license recently was not having time to fish (59.5%). Other reasons reported with substantial frequency included perceptions that fishing areas are too crowded (28.1%) and that the quality of fishing in Utah is not very good (21.9%). Less frequently mentioned reasons included the complexity of fishing regulations (15.3%), the cost of fishing licenses (14.9%), lack of information about fishing areas and opportunities (12.8%), and the expense of fishing equipment (9.2%).

Respondents who did not fish or had not fished in recent years were also asked whether they would be more likely to buy a fishing license if five different types of conditions were to change. As indicated in Table 63, over one-third of respondents (34.3%) indicated that they would be more likely to fish if there was increased access to areas where people could fish. About one-fourth (27.7%) indicated that they would be more likely to fish if the travel distance to fishing areas was shorter. Over one-third (36%) said that improved quality of fishing opportunities would make them more likely to buy a fishing license. About one-fourth (26.7%) indicated that a change to more understandable and simpler fishing regulations would increase the

Table 63. Percentage of respondents indicating that they would be more likely to buy a fishing license if certain conditions were to change, general public sample (percentages).

Condition	Metro-area Residents	Nonmetro Residents	Statewide Sample (weighted)
Increased access to areas where people could fish	35.4	30.5	34.3
Shorter travel distances to fishing areas	29.7	20.5	27.7
Improved quality of fishing opportunities	37.7	30.2	36.0
More understandable and simpler fishing regulations	26.5	27.2	26.7
More and better information on where/how to fish	37.0	29.5	35.3

likelihood that they would participate in fishing. Finally, about one-third (35.3%) of respondents said that the provision of more and better information on where and how to fish would make them more likely to buy a fishing license.

Finally, respondents who had not bought a license in the past or who had not done so recently were asked if they would fish in newly-created fisheries using artificial reservoirs and intensive stocking of fish within urban areas. For the statewide aggregated sample, 53% of those responding indicated that they would be likely to fish in such areas. Surprisingly, both metropolitan-area residents and nonmetropolitan residents were about equally likely to indicate that they would fish in these types of areas. Of those indicating that they would have an interest in fishing at such areas, the vast majority (84.4%) indicated that they would do so if use of such areas required purchase of a special permit, with funds derived from permit sales dedicated to providing this type of fishing area.

CONCLUSIONS AND RECOMMENDATIONS

Overall, the results of this study clearly indicate that Utahns are highly interested in the state's fish and wildlife resources, and highly supportive of efforts to protect and enhance fish and wildlife populations. Both members of the statewide public at large and hunting and fishing license purchasers believe that the Division of Wildlife Resources should place a very high priority on enforcing laws designed to protect Utah's wildlife. They are also extremely enthusiastic about efforts to protect and enhance wildlife populations through acquisition of key land areas and water resources needed to provide wildlife habitat. Utahns also believe strongly that wildlife protection should be prioritized when there are trade-offs involving natural resource extraction,

housing development, road and highway development, or access to and recreational use of wildlife habitat areas. They also believe that the funding needed to manage wildlife resources should be drawn from a broad cross section of the state's population. These results provide DWR with a clear mandate from the public to protect and enhance wildlife populations in the state, and a strong basis for eliciting public support when attempting to secure the funding and political approval needed to implement wildlife management programs.

At the same time, other results raise important questions about how DWR might effectively secure more active involvement and more vocal support from Utahns who are interested in wildlife resources and supportive of efforts to enhance wildlife populations. While the Regional Wildlife Advisory Councils could potentially provide the kind of forum needed to secure broad-based public input and active support, the lack of either familiarity with the RAC process or attendance of RAC meetings indicates that at present they are not doing so. Attention should be directed to strengthening the RAC process and enhancing its usefulness both as a means of securing stakeholder input and of eliciting support for wildlife management programs. This should include a broad-based public information campaign designed to make people more aware of the RAC process, as well as increased attention to announcing the time and locations of meetings so that more people will know when the chance to participate exists. Efforts should also focus on scheduling of RAC meetings at times and places that will encourage broadened participation, perhaps through a periodic rotation of meeting sites within a given region. Finally, the fact that RAC awareness and participation is relatively high only among hunting license purchasers suggests that some other types of stakeholders may view the process as directed primarily at hunting issues and interests. Thus, it may be useful on occasion to schedule meetings that are thematically focused on issues that may be more pertinent to anglers and nonconsumptive

users.

The results also indicate a need to direct attention to both traditional constituencies engaged in hunting and fishing and those whose interests involve nonconsumptive activities. Lower levels of satisfaction among big game and upland game hunters along with the more active involvement of hunters in RAC meetings (as well as in various sportsmen's interest group organizations that provide input to the agency) may tend to make their concerns stand out as the "squeaky wheels" that demand immediate attention. However, it is also important to recognize that nearly half of all Utahns report some involvement in nonconsumptive wildlife-related activities, ranging from wildlife feeding to habitat enhancement to wildlife observation outings. Although consumptive and nonconsumptive interests may clash at times, they are also often based on common interests in the enhancement of wildlife populations and habitat areas. Efforts to solicit more active involvement and dialogue involving the full range of Utahns with wildlife interests could pay important dividends in terms of support for alternative wildlife funding strategies, political support for new management initiatives, etc.

Responses to questions pertaining to specific management issues and concerns suggest several areas that merit attention on the part of DWR managers. Although hunters in particular appear to be concerned about the quality of their experiences and the effectiveness of management efforts directed at game populations, they also appear generally reluctant to endorse management changes that might restrict opportunities (e.g., drawings for tags; setting aside a youth-only hunting date). Support is high for management actions that might make hunting experiences more successful or enjoyable (e.g., releasing pen-raised pheasants, acquisition of public-access hunting and fishing areas, implementing programs to control crowding), but in many cases those who participate may not recognize that such efforts are constrained both by financial

resource availability and by land and wildlife resource limits that make it difficult if not impossible to increase quality without simultaneously restricting some types of opportunities. This suggests a need to more effectively inform and educate hunters, anglers, and the public about the limitations and constraints that confront wildlife managers and to engage wildlife enthusiasts in a dialogue about the trade-offs that must be considered in responding to their concerns and preferences.

Finally, attention must be directed at some specific wildlife management issues that have the potential to generate substantial debate and conflict in Utah. Clearly Utahns at large and substantial segments of the license-buying population have serious reservations about predator management in general, and even stronger concerns about at least some aspects of recreational hunting for Utah's largest predator species, cougar and bear. These represent "hot button" issues that could quickly emerge as the focus of intense and highly divisive debates. A proposed constitutional amendment scheduled for consideration by Utah voters in November, 1998 could make it more difficult for various interests to impose their will regarding wildlife management via ballot initiatives. However, at least under present circumstances, the distribution of support and opposition for predator control to enhance game populations, cougar hunting with hounds, and bear hunting with hounds or bait suggests that all of these management approaches could be vulnerable in a public referendum. To the extent that DWR wishes to avoid such confrontations and to maintain the ability to utilize at least some of these management practices, the agency should carefully consider ways that such programs might be better justified to the public in terms of factors such as overall wildlife management objectives and the health and sustainability of wildlife populations and ecosystems.

In conclusion, wildlife management is a topic of substantial interest to large numbers of

Utahns. In order to more effectively secure the involvement and support of a broader cross-section of the various constituencies that it serves the Division of Wildlife Resources would be well advised to seek out ways of making the public more aware of what is being done regarding wildlife management in Utah, what problems are being confronted, what constraints need to be considered, what opportunities are being provided, etc. Hopefully, the results derived from this survey will provide useful guidance regarding key areas that Utahns wish to see prioritized with respect to future wildlife management in the state, and key areas where additional dialogue and information will likely prove useful.

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APPENDIX A

Survey Questionnaire

1998 Wildlife Management Opinion Survey

INTRODUCTION: *Hello, my name is _____, and I'm calling from the Department of Sociology at Utah State University. We're conducting a public opinion study in cooperation with the Utah Division of Wildlife Resources, the agency responsible for managing our state's wildlife and fish populations.*

Is this (read phone number)? Good! Your household has been selected at random, and I'm calling to ask for your help in our project. Let me assure you that I'm not selling anything, and that your comments will be kept strictly confidential. [NOTE -- IF RESPONDENT ASKS HOW LONG IT WILL TAKE, SAY 'MOST PEOPLE SEEM TO TAKE ABOUT 15 TO 17 MINUTES].

In order to make the sample scientifically valid, I'm supposed to speak with the person 18 years of age or older in your household whose birthday occurred most recently -- would that happen to be you? [SKIP TO BEGINNING OF INTERVIEW IF PERSON ON PHONE IS THE CORRECT RESPONDENT].

[IF PERSON ON LINE IS THE WRONG ONE] -- May I speak with that person?

YES -- *(when selected person answers, repeat introduction above, and proceed with interview)*

NO-- When is the best time to call back to speak with him or her? _____
Who should I ask for when I call back? _____

General Interests and Preferences

1. To start with, we're interested in finding out how **interested** people are in wildlife. On a scale ranging from 0, meaning you have no interest in wildlife whatsoever, to 10, meaning that you have more interest in wildlife than in anything else, what number between 0 and 10 best represents your interest in the fish and wildlife of Utah?

2. Overall, on a scale ranging from 0, meaning you are completely dissatisfied, to 10, meaning that you are completely satisfied, how satisfied are you with the way wildlife and fish are currently being managed by Utah's Division of Wildlife Resources?

3. Is there any particular thing that you would like to see **changed** in regard to how the Division of Wildlife Resources manages wildlife and fish in Utah?

_____

_____

4. Several years ago the Division of Wildlife Resources established a number of citizen advisory boards, called Regional Wildlife Advisory Councils, or 'RACs', as a way to obtain input from the public about wildlife management issues. These Councils meet regularly to obtain input from citizens in their region, and then use that input to make recommendations to state wildlife management officials.

Prior to this survey, have you ever heard anything about the Regional Wildlife Advisory Councils?

(1) YES
(2) NO (SKIP TO QUESTION 7
(8) DK/Can't recall
(9) Refused

5. Have you ever attended a Regional Advisory Council meeting to hear about or offer comments regarding wildlife resource management in Utah?

(1) YES (SKIP TO QUESTION 7)
(2) NO
(8) DK/Can't Recall
(9) Refused

6. (IF HAVE NOT ATTENDED A RAC MEETING) Why haven't you attended any of those meetings? Is it because you are:

(1) Not interested
(2) Not aware of where or when they are held
(3) Not convinced they make much difference in how wildlife management decisions are made
(4) Or, is there some other reason? (please indicate)_____

*Next we would like you to evaluate the **overall effectiveness** of the Division of Wildlife Resource's efforts in regards to several types of wildlife management efforts and programs in Utah. For each of the items that I read, please indicate how effective you think the Division's wildlife management efforts have been, on a scale ranging from **0, meaning Not At All Effective, to 10 meaning Extremely Effective**.*

RANDOM ALLOCATION BLOCK "A" -- ASK OF ½ OF RESPONDENTS

7A. Overall, how effective do you think the Division of Wildlife Resources has been in creating opportunities for people to observe wildlife in natural settings?

8A. How effective do you think the Division has been in creating opportunities for people to fish and catch fish?

9A. Overall, how effective do you think the Division has been in creating opportunities for people to hunt?

10A. How effective do you think the Division has been in enforcing laws designed to protect Utah's wildlife?

RANDOM ALLOCATION BLOCK "B" -- ASK OF ½ OF RESPONDENTS

7B. How effective do you think the Division has been in developing information and education programs that help Utahns to understand and support wildlife conservation efforts?

8B. How effective do you think the Division has been in protecting and improving important wildlife habitat areas in Utah?

9B. How effective do you think the Division has been in protecting and improving populations of wildlife that people do NOT hunt for?

10B Overall, how effective do you think the Division has been in protecting and improving populations of wildlife that people DO hunt for?

Trade-Off Items

Next we'd like you to consider several issues involving wildlife populations in Utah. For each statement that I read, please indicate how much you agree or disagree, on a scale ranging from 0, meaning that you disagree very strongly, to 10, meaning that you agree very strongly.

11. Access to some public land areas should be restricted during certain times or seasons in order to protect wildlife populations using those areas.

12. The use of public lands in Utah for livestock grazing should continue at present levels so long as grazing use does not threaten wildlife or fish populations.

13. Development of oil, natural gas, or coal deposits in Utah should be limited where those types of activities would cause reduced wildlife or fish populations.

14. Areas that provide important wildlife habitat in Utah should be protected, even if this means that some new housing projects cannot be built.

15. Proposed new highways and roads in Utah should not be constructed in areas where they would cause significant losses of wildlife and wildlife habitat.

16. Use of off-road vehicles and all-terrain vehicles should not be allowed where such activities are likely to threaten wildlife or cause damage to wildlife habitat areas.

17. Use of "jet skis" should not be allowed on lakes or reservoirs that are high-use fishing areas.

Funding Questions

18. Now I'd like to ask you which of the following 5 categories you would guess is currently the biggest source of money that the state spends to support wildlife and fish management efforts in Utah?

(1) money provided by the federal government
(2) hunting and fishing license fees
(3) income and sales taxes paid by Utah residents
(4) money donated by voluntary organizations and wildlife interest groups
(5) voluntary contributions from State income tax refunds

(8) Don't know/no idea
(9) Refused

19. Which of the following four groups do you think should be **most** responsible for providing the money needed to maintain and improve populations of fish and wildlife that Utah residents **fish and hunt for**:

(1) all Utahns, regardless of whether or not they have any special interests in wildlife?
(2) everyone who has a special interest in wildlife, including hunters and anglers as well as people with other types of wildlife interests?
(3) only those people who purchase hunting and fishing licenses?
(4) only those people who have special interests in wildlife other than hunting or fishing?
(8) Don't know/no idea
(9) Refused

20. Which of the following four groups do you think should be **most** responsible for providing the money needed to maintain and improve populations of fish and wildlife that Utah residents **do not** usually fish and hunt for:

(1) all Utahns, regardless of whether or not they have any special interests in wildlife?
(2) everyone who has a special interest in wildlife, including hunters and anglers as well as people with other types of wildlife interests?
(3) only those people who purchase hunting and fishing licenses?
(4) only those people who have special interests in wildlife other than hunting or fishing?
(8) Don't know/no idea
(9) Refused

Law Enforcement

Next we want to know your opinion about the Division of Wildlife Resource's efforts to enforce laws pertaining to hunting, fishing, and the protection of Utah's wildlife populations.

21. In the past five years, have you had any contact with a Utah Division of Wildlife Resources law enforcement officer?

(1) YES
(2) NO (SKIP to #24)

22. On a scale ranging from 0, meaning that your experience was very poor, to 10, meaning your experience was very good, how would you rate the professionalism and courteousness of the officer or officers you have had contact with? (IF ANSWER IS 4 OR LOWER, ASK #23; OTHERWISE SKIP TO #24)

23. (ONLY ASK IF ANSWER TO #22 WAS 4 OR LOWER). What in particular was it about your experience that you found unsatisfactory?

_____

_____

24. Next, I'd like to know how many times you observed something that you believed was a violation of hunting, fishing or wildlife laws in Utah during 1997. Did you:

(1) Not observe any hunting, fishing or wildlife violations?
(2) Observe one or two apparent violations?
(3) Observe three to five violations?
(4) Observe six to ten violations?
(5) Observe more than ten violations?
(8) Don't Know
(9) Refused

ITEMS #25A-#33A ASKED OF ONLY ½ OF RESPONDENTS-- RANDOM ALLOCATION BLOCK 'A'

Utah has a limited number of wildlife law enforcement officers who cannot perform every possible enforcement duty everywhere in the state. I am going to read a list of some duties commonly performed by wildlife law enforcement officers. On a scale ranging from 0, meaning very low priority, to 10, meaning very high priority, how much priority do you think the Division should place on each of the following types of duties?

25A Enforcing laws to protect federally listed endangered species, such as the desert tortoise.

26A. Enforcing laws to protect non-game bird species, such as songbirds.

27A. Enforcing laws to protect fish and game species from being taken illegally, such as when a season is closed or in areas where hunting or fishing are not allowed.

28A. Enforcing laws that prohibit people from having loaded firearms in vehicles.

29A. Enforcing laws that prohibit driving under the influence of alcohol or drugs.

30A. Enforcing laws that require individuals to have licenses before hunting and fishing.

31A. Enforcing laws that prohibit trespassing on private property.

32A. Enforcing laws that prohibit littering or polluting.

33A. Educating the public about wildlife through organized programs at schools or other similar events.

Habitat Acquisition Issues

ITEMS #25B-#33B ASKED OF ONLY ½ OF RESPONDENTS-- RANDOM ALLOCATION BLOCK 'B'

On occasion the Division has attempted to acquire and maintain parcels of land and water rights so that important wildlife and fish habitat and open space can be protected. When this is done, purchases and easements are obtained ***only*** *from* ***WILLING SELLERS*** *at* ***FAIR MARKET VALUE****. On a scale ranging from* ***0,*** *meaning* ***"very low priority"****, to* ***10****, meaning* ***"very high priority"****, how much priority should the Division of Wildlife Resources place on efforts to acquire the following types of land areas for protecting and improving wildlife in Utah?*

25B. Farm and ranch areas located close to heavily populated urban communities.

26B. Open space located within residential areas of cities and towns so that people can observe and enjoy wildlife in areas close to their homes.

27B. Land areas that are needed to maintain or increase populations of deer and elk.

28B. Land areas that will provide places for public hunting access.

29B. Land areas that can be managed as protected areas where hunting and fishing are not allowed.

30B. Water rights that will maintain enough water in rivers, streams or reservoirs so that fish populations are protected during dry periods.

31B. Land areas along the edges of rivers, streams or reservoirs to maintain shoreline conditions that will improve water quality and wetland habitat used by wildlife.

32B. Land areas that provide important habitat for non-game animals such as songbirds.

33B. BLANK SPACE IN DATA FILE: NO QUESTION ASKED

Nonconsumptive Wildlife Interests

Next, I'd like to ask about any SPECIAL INTEREST you may have in wildlife in ways OTHER THAN hunting or fishing. By wildlife I mean birds, mammals, fish, reptiles, and amphibians; but NOT animals like pets and farm animals.

34. During the past year, did you feed any wildlife around your home?
    (1) YES
    (2) NO

35. During the past year, did you maintain any natural habitat areas or plant vegetation around your home for the benefit of wildlife?

(1) YES
(2) NO

36. During the past year, did you take part in any trips or outings with the specific purpose of observing, photographing, sketching or painting wildlife or fish in Utah?

(1) YES (answer ALTERNATIVE A items in this section)
(2) NO (answer ALTERNATIVE B items in this section)

ALTERNATIVE A SERIES (FOR THOSE WHO ANSWERED "YES" TO #36)

37A. Altogether, about how many days (or parts of days) did you spend on these kinds of trips and outings during the past year?

(1) one or two days
(2) three to five days
(3) six to 15 days
(4) more than 15 days

38A. Now, considering all such trips you've taken over the past four or five years, I'd like to ask how satisfying your wildlife observation trips in Utah have been. Using our 0-10 scale, with **0** meaning that your experiences have generally been **extremely poor**, and **10** meaning that your experiences have generally been **extremely good**, what number between 0 and 10 would you say best describes your overall satisfaction with your wildlife observation experiences in the state?

ALTERNATIVE B SERIES (FOR THOSE WHO ANSWERED "NO" TO #36)

37B. Although you may not have taken part in any of these kinds of trips or outings during the last year, have you ever taken part in this type of activity in the past?

(1) YES
(2) NO

[38B -- BLANK SPACE IN DATA FILE: NO QUESTION ASKED]

(REMAINDER OF THIS SECTION ANSWERED BY ALL RESPONDENTS)

On a scale ranging from 0, meaning "very low priority", to 10, meaning "very high priority", how much priority do you think that the Division of Wildlife Resources should place on the following kinds of programs?

39. Development of designated "watchable wildlife" sites or trails in city parks or open space areas where people can observe and learn about wildlife that live in urban and suburban areas.

40. Development of "watchable wildlife" sites or trails in undeveloped areas where people can observe and learn about wildlife in their natural habitats.

41. Educational workshops presented by State wildlife specialists where people can learn more about particular Utah wildlife species and their habitats.

42. Development of nature centers near cities where people can see wildlife in natural settings and take part in educational programs about Utah wildlife.

43. Organization of scheduled events such as "Bald Eagle Day" that allow people to take part in organized trips to places where they can observe and learn about Utah wildlife.

44. Development of new radio and television programs to help the public develop a better understanding of Utah's fish and wildlife resources?

Hunting/Game Management Questions

45. During the last three years, did you have a permit or tag to hunt one or more big game species in Utah? By big game, we mean elk, deer, antelope, moose, bighorn sheep, mountain goat, and bison.

(1) YES
(2) NO (SKIP TO #55)

Big Game Questions

46. Did you take any big game hunting trips in Utah during 1997?

(1) YES
(2) NO (Skip to question #48)

47. Altogether, about how many days did you spend hunting in Utah for big game in 1997?

(1) one or two days
(2) three to five days
(3) six to 15 days
(4) more than 15 days

48. Now I'd like to ask how good or bad your big game hunting experiences in Utah have been over the past several years. Using our 0 to 10 scale, where 0 means that your experiences have been extremely poor overall, and 10 means that your experiences have been extremely good overall, what number best describes your big game hunting experiences in the State?

49. If 0 means you strongly disapprove, and 10 means you strongly approve, what number best describes your opinion about the idea of having a special adult-supervised, youth-only deer hunt for one day approximately a week before the opener of the general statewide deer hunting season?

50. If 0 means you strongly disapprove, and 10 means you strongly approve, what number best describes your opinion about changing the way that deer hunting licenses are sold, so that people who want to participate in traditional family hunting groups will be assured of being able to buy a license, even if this results in increased hunting pressure and lower hunting success in some areas?

51. Have you ever applied for or purchased an elk hunting permit in Utah?
    (1) YES
    (2) NO (SKIP to #55)

Elk hunting permits are issued to hunters in several ways. For limited entry and general season muzzleloader hunts, permits are only issued through a drawing. For general season any-bull hunts and general season spike-bull hunts, permits are sold over the counter on a first-come basis.

52. Do you favor continuing to issue general season muzzleloader elk permits by a drawing?
    (1) YES
    (2) NO

53. Do you favor a change to having general season any-bull elk permits issued by a drawing?
    (1) YES
    (2) NO

54. Do you favor a change to having general season spike bull elk permits issued by a drawing?
    (1) YES
    (2) NO

Cougar/Bear/Predator Management Questions

55. If 0 means you strongly disapprove, and 10 means you strongly approve, what number best describes your opinion about management practices that would limit or reduce populations of predators such as cougars or coyotes in order to protect populations of game animals?

56. On the same 0 to 10 scale, what number best describes your opinion about using recreational hunting to manage **cougar** populations in Utah?

57. On the same 0 to 10 scale, what number best describes your opinion about continuing to allow the use of hounds to hunt cougar in Utah?

58. If 0 means you strongly disapprove, and 10 means you strongly approve, what number best describes your opinion about using recreational hunting to manage **black bear** populations in Utah?

59. On the same 0 to 10 scale, what number best describes your opinion about continuing to allow the use of hounds to hunt black bear in Utah?

60. On the same 0 to 10 scale, what number best describes your opinion about allowing bear hunters to use baits that attract bears?

Upland Game Hunting Questions

61. During the past three years, did you buy a license to hunt small game such as waterfowl, pheasants, grouse, or rabbits in Utah?

(1) YES
(2) NO (SKIP to #73)

62. Did you take any upland game (pheasants, grouse, rabbits, etc.) hunting trips in Utah during 1997?

(1) YES
(2) NO (Skip to question #65)

63. About how many days did you spend hunting in Utah for upland game during 1997?

(1) one or two days
(2) three to five days
(3) six to 15 days
(4) more than 15 days

64. Now I'd like to ask how good or bad your upland game hunting experiences in Utah have been over the past several years. If 0 means that your experiences have been extremely poor overall, and 10 means that your experiences have been extremely good overall, what number best describes your upland game hunting experiences in the State?

65. On a scale of 0, meaning that you strongly disapprove, to 10, meaning that you strongly approve, what number best describes your opinion about the idea of having the Division of Wildlife Resources offer special one-day youth-only upland game hunts?

66. If 0 means you strongly disapprove, and 10 means you strongly approve, what number best describes your opinion about the idea of having the Division raise and release pen-raised pheasants or other upland game birds in order to increase the number of birds available during hunting seasons?

67. On the same 0 to 10 scale, what number best describes your opinion about the idea of having the Division impose limits on the number of hunters who could access heavily-used wildlife management areas during busy periods of the upland hunting seasons?

Waterfowl Hunting Questions

68. Did you take any waterfowl hunting trips in Utah during 1997?
    (1) YES
    (2) NO (Skip to question 71)

69. About how many days did you spend hunting in Utah for waterfowl during 1997?
    (1) one or two days
    (2) three to five days
    (3) six to 15 days
    (4) more than 15 days

70. Now I'd like to ask how good or bad your waterfowl hunting experiences in Utah have been over the past several years. Using our 0 to 10 scale, where 0 means that your experiences have been extremely poor overall, and 10 means that your experiences have been extremely good overall, what number best describes your waterfowl hunting experiences in the State?

71. If 0 means you strongly disapprove, and 10 means you strongly approve, what number best describes your opinion about the idea of having the Division offer special one-day youth-only waterfowl hunts?

72. On the same 0 to 10 scale, what number best describes your opinion about the idea of having the Division provide several high quality waterfowl hunting areas where there would be limits on the number of hunters who could use a state wildlife management area in a single day?

Fishing Questions

73. Have you ever purchased a Utah Fishing License?
    (1) YES (SKIP to #75)
    (2) NO

74. If you have **never** purchased a fishing license in Utah, we're interested in understanding the reasons that you have not done so. For each item that I read, please tell me YES if it is a reason you haven't bought a fishing license, or NO if it has not influenced your decision. **[AFTER RESPONSE, SKIP TO QUESTION #77]**

(1) Fishing licenses cost too much?	YES	NO
(2) Fishing equipment is too expensive?	YES	NO
(3) You don't have time for fishing?	YES	NO
(4) You don't know how to fish?	YES	NO
(5) Going fishing would require too much travel?	YES	NO
(6) Fishing regulations are too complicated?	YES	NO
(7) You have no interest in fishing?	YES	NO

75. Have you purchased a Utah Fishing License in the last three years?

(1) YES (Skip to #80)
(2) NO

76. If you have **not** purchased a fishing license in last 3 years, we're interested in understanding why you have not done so. For each item that I read, please tell me YES if it's a reason you haven't bought a fishing license during the last 3 years, or NO if it has not influenced your decision.

(1) Fishing licenses cost too much?	YES	NO
(2) Fishing equipment is too expensive?	YES	NO
(3) Fishing areas are too crowded?	YES	NO
(4) You don't have enough time to fish?	YES	NO
(5) Quality of fishing is not very good?	YES	NO
(6) Fishing regulations have become too complicated?	YES	NO
(7) You don't have information about fishing areas and opportunities?	YES	NO

77. We're also interested in knowing whether you would be more likely to purchase a fishing license, if certain conditions were to change. For each item that I read, please tell me YES if this condition would make you **more** likely to buy a fishing license, or NO if it would **not** affect your decision.

(1) More access to areas where you could go fishing?	YES	NO
(2) Shorter travel distance to fishing areas?	YES	NO
(3) Better quality fishing opportunities?	YES	NO
(4) More understandable and simpler fishing regulations?	YES	NO
(5) More and better information on where and how to fish?	YES	NO

78. If the Division of Wildlife Resources created fisheries using man-made lakes and intensive stocking of fish within the urban areas of Utah, would you fish in these waters?

(1) YES
(2) NO (skip to #80)

79. Would you fish these waters if you were required to purchase a special permit, with the money from permit sales dedicated to providing these fishing areas?

(1) YES
(2) NO

BACKGROUND QUESTIONS

Finally, I'd like to complete the survey by asking a few background questions that will help us make sure the study is scientifically valid.

80. What Utah county do you currently live in? _____

81. How many years have you lived in that county? _____

82. How many years have you lived in Utah? _____

83. (IF RESPONSE TO #141 IS LESS THAN 10 YEARS) What state did you live in before moving to Utah? _____

84. Which of the following best describes the kind of community where you currently live?

    (1) a large metropolitan city, with a population of 100,000 or more
    (2) a medium-sized city, with a population of 25,000 to 100,000
    (3) a smaller city, with a population of 5,000 to 25,000
    (4) a town or village with a population of 1,000 to 5,000
    (5) in the country or in a very small town with a population under 1,000

85. RESPONDENT'S SEX (Don't ask unless necessary; determine by respondent's voice)
    (1) MALE
    (2) FEMALE

86. Which of the following age groups best describes your age?
    (1) under 25 years
    (2) 25 to 34
    (3) 35 to 44
    (4) 45 to 54
    (5) 55 to 64
    (6) 65 or older

    (9) REFUSAL

87. Which category best describes your present marital status:
    (1) never married?
    (2) presently married?
    (3) separated or divorced?
    (4) widowed?
    (5) something else? (please indicate)_____

    (9) REFUSAL

88. Altogether, how many people live in your household, including yourself? _____

89. How many of those people are under 16 years of age? _____

90. What is the usual occupation of the main wage-earner in your household? _____

(PROBE IF NOT CLEAR): What exactly does that work involve? _____

91. Which of the following best describes the highest level of school that you have completed?

(1) did not finish high school
(2) high school graduate
(3) some college but did not finish a degree
(4) four year college degree
(5) post-graduate college training

92. Finally, for statistical purposes we'd like to ask which of the following categories best describes your total annual household income, before taxes, in 1997. Please stop me when I reach the category that applies to your household:

(1) under $10,000
(2) $10,000 to $19,999
(3) $20,000 to $29,999
(4) $30,000 to $39,999
(5) $40,000 to $49,999
(6) $50,000 to $59,999
(7) $60,000 to $79,999
(8) $80,000 to $89,999
(9) $90,000 to $99,999
(10) $100,000 or more

(88) DON'T KNOW
(99) REFUSAL

OK, THAT'S IT! THANK YOU VERY MUCH FOR YOUR HELP!